ABSTRACT

Title of Document: DOES FOREIGN AID LEAD TO ARMED CIVIL CONFLICT? EXAMINING HORIZONTAL INEQUALITIES AND ETHNIC EXCLUSION

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The impact of aid flows and ethnic exclusion on civil conflict in Africa is explored. Ethno-politics and informal institutions dictate discriminatory spending allocations (in the form of political patronage flows) in most African states. The unequal allocation of these resources can foster grievances in excluded populations. When states gain access to non-tax revenues (i.e., foreign aid), it is often allocated in a similar fashion. When inequalities in access to resources lie along ethnic lines, the likelihood and intensity of conflict is higher as ethnicity can offer an important mobilizing source in organizing political action. Using newly-available disaggregated data to explore these relationships at the subnational-level, statistical results are found supporting this theory. Additionally, micro-level analysis of these mechanisms bolsters the statistical findings in a country-case study of the Democratic Republic of the Congo, where the locations of aid projects, ethnic group settlement patterns, and civil conflict sites are mapped using geographic information systems.

DOES FOREIGN AID LEAD TO ARMED CIVIL CONFLICT? EXAMINING HORIZONTAL INEQUALITIES AND ETHNIC EXCLUSION

By

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Dedication

For Maman and Baba, whose many sacrifices got me here.

And for Katayoun, my greatest support.

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This project could not have been completed without the support of a number of individuals, namely, my dissertation committee.

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The importance of the role of inequality and African patronage politics did not fully press upon me until after taking Dr. John McCauley's African Politics course. The paper I originally wrote as the term paper for his class eventually stemmed into the prospectus for this dissertation project. His reading of *countless* drafts of my work

was invaluable in pushing this project forward, without which I am sure I would still be in early iterations of this project.

After forming my theory, I would not have been able to complete the quantitative analysis for this project without the instrumental support of Dr. Ernesto Calvo. His patience and guidance during hours upon hours of data analysis was integral in this project's analyses.

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1 Introduction

Though many African and Asian states received much aid beginning in the early 1960s while in similar stages in terms of global development, they have since taken somewhat divergent paths and their global development statuses today are different – many Asian states have become key players in the world economic market after experiencing high growth rates (especially the 'Four Asian Tigers': Hong Kong, Singapore, South Korea, and Taiwan), while many African states continue to be plagued by extremely high poverty and conflict rates. Why is it that aid in some regions has played a more effective role – helping attain development goals and fostering growth – while being less effective in others?

In addition to seeing higher rates of poverty, Africa has also consistently experienced the highest rates of conflict worldwide, which come at especially high costs to civilians and non-combatants.[1] Often quantitative models studying various political processes include a regional Africa dummy variable to account for this stark difference seen in the region versus the rest of the world, but what is the cause behind

[1] It should be noted that conflict is not necessarily always normatively bad. Van de Walle (2001a) "notes that African regimes are surprisingly durable (i.e., less leadership turnover than in any other continent) despite economic stagnation and other problems that are associated with the continent. One of his explanations for this phenomenon relates to the large amounts of aid that flow into many of these countries ... [arguing] that the political elites of some African countries allow just enough reform to satisfy donors, but subsequently utilize the 'residual' funds in a predatory fashion to maintain themselves in power" (de Ree and Nillesen, 2009, p.302). In situations like this, in a normative sense, the minimization of the likelihood of an insurgency to overthrow such a government is not necessarily 'bad.'

the effect that this variable is actually capturing? I argue that it may stem from the relationships and interactions amongst the various ethnic groups in the region, coupled with the critical role that informal institutions play in shaping politics on the continent. Much of African politics is based on patronage politics, in which the state relies on the allocation of resources to certain individuals (i.e., an in-group) in return for electoral support, to the detriment of out-groups (i.e., those who do not receive patronage / access to resources). In Africa, leaders often determine who receives patronage based on one's ethnicity – namely, whether one is of the same ethnicity as the leader / those in power. As Africa is home to some of the most ethnically diverse states in the world, inequalities along ethnic lines – resulting from some ethnic groups receiving patronage while some do not – are common. These inequalities can foster grievances in those excluded from benefits. That – coupled with the fact that a common ethnicity can offer an important mobilizing source in organizing political action – means that conflict is unsurprisingly prevalent on the continent.

Is there a link between the high amount of aid that Africa has received and the large number of conflicts that it has seen? Recent research has begun to explore this aid-conflict nexus, offering various arguments for altering current aid programs – increasing or decreasing the level of aid states receive, setting policy conditionalities with aid donation (i.e., promoting democratization, enforcing 'good governance'), etc.

I argue that *the way in which aid is allocated* is the driving force behind the linkage between aid and conflict, especially in Africa given the complex role of ethnicity and informal institutions in the region. Informal institutions tend to dictate how resources are allocated in Africa (i.e., who makes up in-groups versus out-groups), while ethnicity tends to determine which individuals comprise which of these groups. The introduction of non-tax revenue to the budgets of these states (i.e., foreign aid) means further resources at the disposal of state leaders to use towards fueling patronage; as a result, much aid tends to be allocated in the same manner as the way in which other resources in a state are allocated. In states where there is a high level of inequality between who receives patronage and who does not, providing the state with further resources to allocate in this uneven way can do much to (further) increase excluded populations' grievances – grievances that can in turn transpire into conflict.

I find results supporting this notion in this dissertation project. I find that though the *level* of aid to a state does not seem to significantly influence conflict, the *way* in which aid is allocated sub-nationally plays a statistically significant role in determining whether aid flows will have harmful effects in a state (i.e., whether they will influence civil conflict).

I test my theory through the use of newly available geocoded data on aid, ethnicity, and civil conflict in Africa, which allows me to look at these processes sub-nationally. This theory is based on relationships below the state-level – i.e., the relationships and inequalities amongst ethnic groups *within* a state. As a result, this

theory cannot be tested at the state-level – the level of analysis used by most studies exploring the aid-conflict nexus in Africa (as a result of the previous dearth of disaggregated data). Capitalizing on the availability of new data, this study is the first to explore the relationship between aid and inequality along ethnic lines on civil conflict in Africa.

The importance of this project stems from the necessity to maximize the positive effect of our finite resources. Having foreign aid inflows transform from something meant to be helpful and positive into something ineffective, or, even worse, harmful, is a disservice not only to those it is meant to aid, but also to donors whose contributions are as a result undermined. Thus, it is important to have a concerted push towards the examination of the effectiveness of the current aid system, especially as it can also be a crucial step in peacekeeping efforts.

By studying the factors that can affect conflict, this project seeks to understand the mechanisms that can contribute to violence, and using these findings, seeks to address how we might alter current aid strategies in order to combat these threats to peace and diminish both the likelihood of conflict as well as its intensity. Examining the role of inequality and ethnic exclusion specifically – and the role of social demographics and discrimination more generally within African states – on where aid is allocated and on the specific location where conflict occurs provides insight into how best to distribute aid resources within a state in terms of geography for maximum effectiveness and minimal harmful consequences.

1.1 Organization of the Dissertation Project

This dissertation is organized as follows:

Chapter 2 offers an introduction to the three literatures from which the theory stems – the international aid system, inequality and ethnic exclusion, and civil conflict in Africa.

Chapter 3 introduces the main theory as well as the various hypotheses that will be tested at both the aggregate, state-level as well as the disaggregate, subnational-level. The general research design of the dissertation is also introduced.

Chapter 4 presents state-level (aggregate) statistical analysis. Here the data and methodologies used are introduced, results are presented, and findings are discussed. The models and analysis discussed here mirror most of the studies that have been conducted exploring the aid-conflict nexus.

Chapter 5 presents the subnational-level (disaggregate) statistical analysis. Here, again, the respective data and methodologies are introduced, results are presented, and findings are discussed. The models and analysis discussed here take advantage of newly available data to explore the relationships set forth in the main theory at a level of analysis below the state-level, examining political processes within states.

Chapter 6 presents the micro-level analysis of the Democratic Republic of the Congo as a case study. Here, again, the respective data and methodologies are introduced, and geographic information systems (GIS) analysis is used. The use of GIS maps allows for the identification of aid 'hot spots' and 'cold zones' and visually presents the effect that it may have on both the allocation of aid projects as well as on civil conflict in the region.

Chapter 7 concludes by summarizing the main findings of the dissertation, and translates what the findings might imply for aid agencies and policy organizations. Future research avenues building off of this project are also proposed here.

2 Literature Review

I theorize that the study of aid's relationship to intrastate conflict engages three main academic topics: the foreign aid, inequality and ethnic exclusion, and civil conflict literatures. In order to situate this work within those debates, I examine the foreign aid literature first, examining the positive, negative, and harmful effects of aid. I then examine the literature studying ethnic exclusion in order to determine the effects of inequality on state constituencies and the role that relative deprivation might play in fueling grievances that can escalate into conflict. Lastly, I investigate the literature examining what characteristics contribute to civil conflict within a state, especially in Africa.

2.1 The International Aid System

Though aid can take on many forms – such as physical goods, skills and technical know-how, financial grants, or loans – more narrow and restrictive definitions are the most appropriate when discussing foreign aid such as *development aid* or *official development assistance*, as operationalization can help minimize confusion and strengthen generalizability (Riddell, 2007). The Development Assistance Committee (DAC) of the Organisation for Economic Cooperation and Development (OECD) acknowledges both the bilateral and multilateral components of foreign aid, and defines Official Development Assistance (ODA) as:

> Flows of official financing administered with the promotion of the economic development and welfare of developing countries as the main objective, and which are concessional in character with a grant element of at least 25 percent (using a fixed 10 percent rate of discount). By convention, ODA flows comprise contributions of donor government agencies, at all levels, to developing countries ('bilateral ODA') and to multilateral institutions. ODA receipts comprise disbursements by bilateral donors and multilateral institutions. (OECD, 2007)

2.1.1 Positive Outcomes of Aid

Scholars like Kaufmann (2009), Mosley (1987), and Hansen and Tarp (2000) argue that giving aid to developing countries – especially if done effectively – can aid in their economic growth, as increases in capital can help states reach development goals they were previously unable to attain. Clemens et al. find that "increases in aid have been followed on average by increases in investment and growth" (2012, p.590). Much of this literature uses state-wide economic growth as a measure of aid effectiveness, especially those studies that find aid to be less than effective in reaching development goals (for an overview of the more prominent of these studies, see Roodman, 2007). But there is more to development than just poverty reduction. When disaggregating aid projects by type and examining specifically relevant development measures as outcomes – i.e., measuring the effectiveness of health-targeted aid projects through gains made in health-related development indicators state-wide, such as lowering the death rate in a state or increasing the life expectancy – successful outcomes resulting from aid can be seen (Kishi and McNally, 2012; see also Croghan, Beatty, and Ron, 2006). This can add credence to those lobbying for continued aid to developing states (Singer, 2009) or those advocating for increased aid to states (Sachs, 2005).

2.1.2 Negative Outcomes of Aid

There are scholars on the other side of the debate as well, arguing that aid – especially as it stands today – is ineffective (Alesina and Weder, 2002; Calderisi, 2006). Billions of dollars are spent each year in foreign aid flows, yet over a billion people of the world still live on less than $1.25 a day (World Bank, 2014). If these inflows do not make any effective changes in the lot of the less fortunate, it is a disservice to taxpaying citizens in donor countries whose funds have been essentially wasted. This argument supports those scholars who argue that the aid system, as it stands today, should be reevaluated and restructured to become more effective (Easterly, 2001; Gunning, 2001).

Even worse than its ineffectiveness is when aid can become damaging to those it is meant to help. Some suggest that large amounts of aid can lead to dependence on aid, which can in turn lead to similar problems as seen in the resource curse literature, fostering a dependency out of which it can be difficult to climb (Sollenberg, 2009). The resource curse literature suggests that countries that have an abundant natural resource, like oil or diamonds, with high international monetary value (i.e., rentier states) tend to see less economic growth and have lower development outcomes than states that are not dependent upon just a few valuable resources (Ross, 1999). Studies have offered cognitive, societal, and statist explanations behind the reasons why (Ross, 1999). Low economic growth can create an environment in which the opportunity cost for rebellion is lowered, making civil war more likely (Collier and

Hoeffler, 2005). Rentier states "tend to have weaker state apparatuses than one would expect given their level of income because the rulers have less need of a socially intrusive and elaborate bureaucratic system to raise revenues" (Fearon and Laitin, 2003, p. 81). There is less accountability on behalf of the government as they are not dependent on tax revenue from their constituencies, and hence have less incentive to maintain a content constituency by incorporating them into a democratic process (Paler, 2011). Lack of governmental accountability can in turn increase popular grievances and can motivate rebellion (Humphreys and Weinstein, 2008), which can in turn further damage the prospects for economic growth.

Dependency on an abundant resource can also lead to a reduction in the competitiveness of other economic sectors. This is not only because the attractiveness of pursuing other economic sectors is diminished as large revenues are gained through the natural resource, but also because of the 'Dutch Disease.' This refers to when the revenues from the abundant resource make the nation's currency stronger on the international market, thus increasing the exchange rate. As a result, the nation's other exports become more expensive for other countries to buy, thus making the other manufacturing sectors less competitive. Moreover, domestic consumers increasingly buy higher quality imports with their over-valued currency making the development of domestic manufacturers more difficult. Subsequently, the country grows increasingly dependent on revenues generated by its abundant natural resource in a kind of positive feedback system. These issues, often coupled with

mismanagement of the resource by weak or corrupt governments, hurt economic growth and increase income inequality.

The concept of the resource curse could be extended to other types of non-tax revenue as well, such as international aid flows (Brass, 2008).

> Aid, much like oil income, influences state-society relations in specific, harmful ways. Inspired by rentier state theories, …when states gain substantial incomes from external sources, such as oil, minerals or foreign assistance, they do not need to levy domestic taxes and therefore become less accountable to the societies they govern. (Therkildsen, 2002, p. 41-2)[2]

"Several studies have shown that some aid money goes missing before reaching the intended recipients, and this money may well have properties similar to those of natural resource revenues" (Harford and Klein, 2005, p.2): it may be associated with the weakening of state institutions. Bräutigam finds dependence on aid over time to have a negative effect on the development of institutions, and in fact argues, "large amounts of aid, delivered to countries with weak institutions *create* some of the institutional problems that lead to ineffectiveness" (2000, p.1). Knack (2001) finds that state economic institutions deteriorate with large aid flows, and Djankov et al. (2008) find that aid, like oil rents, negatively affects democratic institutions, stating that aid-dependent states see political deterioration – furthermore, they find that aid is actually an even bigger curse than oil. They cite the ten largest deteriorations and ten greatest improvements in democratic institutions and assert that the former are associated with large aid flows the previous year while the latter received modest aid flows the previous year.

[2] If anything, "aid-dependent governments are accountable to donors, not to their population" (Harford & Klein, 2005, p.3), though as argued in more detail later, recipient country accountability to donors is often not very heavily enforced as little fluctuation is seen in aid donation practices.

Dependency on large inflows of aid can also have a similar effect as abundant natural resources in reducing the competitiveness of other economic sectors of the state as in the 'Dutch Disease.' "If aid is temporarily high and crowds out export firms through real appreciation, it may not be possible to resuscitate these firms once aid falls and the real exchange rate depreciates" (Aiyar et al., 2006, p. 132). In a study by Rajan and Subramanian (2005), the authors find that "export and labor-intensive manufacturing industries grew significantly slower in those countries that received the most aid," implying that high inflows of foreign aid have "systematic adverse effects on competitiveness" (Adam, 2006, p. 179). This issue is doubly problematic as it implies that not only do the aid commitments in this situation exhibit poor rates of return, but furthermore that they are actually detrimental to the overall economic growth of the state (Aiyar et al., 2006). In line with this argument, Moyo (2009) argues the need for African countries to wean themselves off of foreign aid and to instead shift their focus onto market solutions for growth – i.e., accessing bond markets, minimizing/doing away with corruption, and encouraging entrepreneurship.[3]

Bräutigam and Knack (2004) argue that aid can have positive effects if coupled with clear and enforced development agendas which could help "improve the quality of the civil service, strengthen policy and planning capacity, and establish strong central institutions," citing South Korea, Taiwan, and Botswana as examples. However, they

[3] Furthermore, aid can also "[siphon] skilled workers away from government…By paying big salary premiums, large donor projects can 'poach' good people away from government, weakening its institutions" (Harford & Klein, 2005, p.3). This could be further reasoning to support indigenous development strategies.

explain how high levels of aid could have the opposite effect, both weakening institutions and thwarting efforts to build a more capable and responsive state (Bräutigam and Knack, 2004). Hyden argues that "many of the countries that have found it difficult to meet the [UN's Millennium Development Goals] are … highly aid-dependent" (n.d., p.8), and Clemens et al. (2012) find that the increases in growth that they identified with the introduction of aid diminishes at high levels of aid.

Geddes (1994) argues that high levels of aid inflows can exacerbate the collective action problem associated with reform efforts, since political leadership receiving high aid inflows do not feel pressured to sacrifice in the present for future reforms (see also, van de Walle, 2001a). "Countries in economic crisis need to concentrate their resources on a small number of critical activities. Yet aid creates an incentive to expand operations to include all the initiatives donors want to fund" (Bräutigam and Knack, 2004). Large inflows of aid can lead to "soft budget constraints," which can lessen a government's incentive to only spend on expenditures in which they can afford to invest (Bräutigam and Knack, 2004). These soft budget constraints can lead to the collective action problem known as the "tragedy of the commons," since it is in everyone's interest to continue receiving the benefits of aid inflows today, even though this aid dependency can lead to problems later for future citizens (Bräutigam and Knack, 2004). High aid flows can also create a moral hazard, causing leaders to engage in risky behavior since they have access to external revenues ("an insurance policy" of sorts) (Bräutigam and Knack, 2004). There is additionally an added risk of

aid flows being captured and not serving their intended purposes (Reinikka and Svensson, 2005).

Incentives for democratic accountability are also reduced in an aid-dependent system. As aid revenue is similar to other sources of non-earned revenue (i.e., mineral extractions), these "rentier states face fewer internal pressures to improve state capacity and accountability…[since] when the flow of revenue is little affected by government efficiency, there is little incentive to improve state capacity" (Bräutigam and Knack, 2004).

Collectively, these arguments support the notion that "large amounts of aid…may contribute directly to the weakening of the institutions of the state and the erosion of capacity" (Bräutigam and Knack, 2004). The arguments suggest that there is a kind of 'aid curse,' which like the resource curse could increase the risk of armed conflict that results from the undermining of state institutions and capacity with the influx of non-tax revenue.

Some may argue that comparing natural resources and foreign aid is inappropriate. Most obviously, "oil [or another similar natural resource] is an asset that a state controls without having to rely on the good will of other states… [while] donors could withdraw aid at their own discretion, should it be abused" (Sollenberg, 2009, p.

5). Yet, while the two phenomena are conceptually distinct, this does not preclude the possibility for comparison (for example, see Therkildsen, 2002).[4]

First, though donors *could* withdraw aid in the event of abuse, it is unclear to what extent donors are able to detect 'abuse', especially as the fungibility of aid may "[thwart] the intentions of donors" (Pack and Pack, 1993, p.258). Even when donors are able to detect abuse, there is strong pressure and incentive not to backtrack on the provision of aid.[5] Donors are typically democracies, and thus try to follow where aid ends up in recipient countries since they may face domestic audience costs should their expenditures (i.e., their constituents' tax dollars) be deemed wasteful. However, this is not always an easy feat with the increase of donor competition and aid proliferation.

The proliferation of aid projects refers to the increase in the number of aid commitments that aid-recipient states receive. With aid commitments come "a string of administrative procedures, [where each donor tends] to have distinct (and usually different) requirements for appraising, monitoring and reporting on the results of each discrete aid activity," which must be addressed using domestic resources (Riddell, 2007, p. 53). With the problem of donor multiplicity increasing (Riddell, 2007), there is an increase in the amount of scarce domestic resources of the recipient country that

[4] Morrison finds that "the particular source of nom-tax revenue does not make a difference [in regime stability]" when comparing aid to other non-tax revenues (2009, p.107).
[5] Donor governments are often unable to retract promised donations once they have made aid commitments. Recipient governments know this. This fact can hence also have deleterious effects as the policy incentives of recipient states may change as a result (van de Walle, 2001a).

must be siphoned off from directly productive use to address these reporting requirements (Roodman, 2006).[6] It is estimated that

> the number of individual development projects of official aid agencies rose more than one and a half times in the eight-year period from 1995 to 2003, from just over 10,000 to over 27,000, [though] this figure is almost certainly an underestimate because, in 2004, some 35,000 separate official aid transactions were reported to the OECD/DAC (an average of almost 200 per country). (Riddell, 2007, p. 52-3)

Though a number like 200 commitments seems like a large amount in itself for a developing country to stomach when taking into account its accompanying administrative duties, this is just an average – some countries saw a great deal more than this. For example, Tanzania saw over 1,500 aid commitments in the three-year period between 2001 and 2003 (Roodman, 2006). With such high numbers of commitments, it is easily apparent that this could place a burdensome strain on the recipient government, and can create a challenge that may be insurmountable to most. As a result, it becomes increasingly difficult for these governments with scarce resources to adequately provide in-depth details about the status of all aid commitments (Roodman, 2006; Sollenberg, 2009), suggesting that donor countries often do not know the exact use of all of their donations and thus might not react immediately to abuses of aid (Sollenberg, 2009).[7]

Another question when considering the transience of aid donations includes the factors donor countries consider when making aid commitments. The majority of

[6] Furthermore, the fungible nature of aid means that aid revenue itself could potentially be used in these endeavors.

[7] I further discuss the way donor countries might be unaware of how aid is actually being used within recipient countries later within the literature review when addressing how aid flows may be used to further fuel patronage politics (Mwenda and Tangri, 2005).

foreign aid is bilateral, and thus dependent on the donor countries' own interests, strategic ties, and/or economic interests. Colonial ties and current political ties are the major determinants in who receives aid donations from a specific country (Alesina and Dollar, 2000), and seem to play a more important role than both the needs and conditions in the aid-recipient country, as well as their budgetary policies. For example, Alesina and Dollar find that "an inefficient, economically closed, mismanaged non-democratic former colony politically friendly to its former colonizer, receives more foreign aid than another country with a similar level of poverty, a superior policy stance, but without a past as a colony" (2000, p.1).[8] As these relationships largely endure (i.e., colonial legacies do not change), aid flows remain in large part constant. Over the past 50 years, net ODA has been expanding overall, as "more and more countries have become donors, and none [have] stopped providing aid" (Riddell, 2007, p. 22), suggesting that the existence of large-scale corruption has not translated into significant aid cuts. Examples of how aid allocation was not decreased in response to poor political performance include the Mugabe regime in Zimbabwe, the Mobutu regime in Zaïre, and the Afeworki regime in Eritrea (Sollenberg, 2009) to name a few.[9]

Hence, the argument that aid should not be treated in the same way as natural resources like oil, due to its transient nature since donors can halt aid flows in

[8] Alesina and Dollar find that "foreign direct investments are more sensitive to economic incentives, particularly 'good policies' and protection of property rights in receiving countries (2000, p.1).
[9] See also, US support for Augusto Pinochet in Chile, Raul Videla in Argentina, General Suharto in Indonesia, and Idi Amin in Uganda, as well as even Saddam Hussein in Iraq and Muammar Gaddafi in Libya who "basked for a time in western approval, as long as they made their oil resources available and opened up investment opportunities for western powers" (Ghosh, 2012).

response to unapproved or corrupt expenditure, or poor political conditions, does not necessarily hold. Most aid is allocated at the state level,[10] and aid's fungible nature (Pack and Pack, 1993; Feyzioglu, Swaroop, and Zhu, 1998; Devarajan and Swaroop, 2000; Pettersson, 2007) therefore leads it to have properties similar to other natural resources for a leader.

2.1.3 Aid and Civil Conflict

In addition to the long-term negative effects that can be associated with aid – i.e., fostering dependency, or weakening state institutions and economic markets – some studies have connected aid with detrimental short-term shocks such as fueling civil conflict. Grossman, for example, finds that "foreign aid causes reallocation of resources from production to an intensified struggle over distributive shares" (1992, p.275). Nunn and Qian (2012) also find a positive relationship between aid (food aid, specifically) and an increase in civil conflict incidence, onset, and duration. Uvin (1998) argues that aid did much to fuel the mechanisms that ultimately led to the occurrence of the Rwandan genocide, and Findley et al. (2011) discuss the misuse of aid in Somalia, Afghanistan, Tajikistan, Chechnya, and Gaza.

Arguably, "all aid, at all times, creates incentives and disincentives, for peace or for war, regardless of whether these effects are deliberate, recognized or not, before, during or after war" (Uvin, 1999, p.4). Some studies have not found a causal link

[10] Scholars like Easterly (2006) therefore call for bypassing the state in the allocation of aid in an effort to address some of these issues in revising the current international aid system. This idea is revisited in the final conclusions and policy implications chapter.

between aid and civil conflict. De Ree and Nillesen (2009), for example, state that they do not find a statistically significant link between aid flows and the probability of the onset of civil conflict, and argue for an encouraging relationship between aid and conflict: that an increase in aid flows can lead to a reduction in the duration of civil war. Savun and Tirone also find this encouraging relationship between increases in aid leading to a reduction in the duration of civil conflict (for democracy aid, specifically) (2011); they also find that an increase in aid can be helpful during the period of time following an economic shock – a period of time when the risk of civil conflict has increased – in helping decrease the risk of conflict onset (2012).

It is worth noting that these studies – with the exception of Uvin's (1998) case study analysis of Rwanda – all examine the relationship between aid and conflict at the (aggregate) state-level. This variation in findings (i.e., the arguments for a positive and negative relationship between aid flows and civil conflict) points to the less precise aspect of conducting analysis at this level when examining these sorts of processes. This bolsters the argument for conducting subnational level analysis to better understand the processes at play here. I explore this argument again later when discussing the research design for this project.

2.2 Inequality

A potential negative consequence of aid is that it can be used to fuel patronage flows in more clientelistic states, especially those in which patronage politics dictate discriminatory spending allocations. Patronage is a structural feature of a political

system – a strategy for "the acquisition, maintenance, and aggrandizement of political power, on the part of the patrons, and strategies for the protection and promotion of their interests, on the part of the clients" (Piattoni, 2001, p. 2). Patronage is thus descriptive of a system in which a population trades votes and other types of partisan support for public decisions with distinguishable benefits (Piattoni, 2001). Patronage is often used to describe the public resources that are allocated within these types of relationships, hence referring to "the object of the exchange between patrons and clients… [and often times] the exchange itself" – a type of spoils system (Piattoni, 2001, p. 5).

When goods within a society are scarce, informal personal networks (i.e., channels through which patronage flows) may often form as a response to ongoing shortages, manifesting as vertical or horizontal networks (Radnitz, 2010). Over time, these networks can lead to inequalities as certain individuals (included / in-group members) receive benefits from the system – i.e., increased access to resources – while others (excluded / out-group members) receive minimal advantages, if not disadvantages through outright discrimination. These inequalities can later eventually manifest into conflict if out-group grievances become large enough, assuming there exists a mobilization mechanism to help overcome the collective action problem (Langer, 2005). This relationship is further explored in more detail below.

2.2.1 Patronage Networks

There is a prevalence of informal institutional networks in African politics today, in which arguably more emphasis is placed on ethno-political patronage networks than on formal institutions that are in place (Bratton, 2007).[11] As a result, leaders can rely on patronage as a vote-buying mechanism, especially as there exists "an internalized norm of reciprocity [where] receiving money engenders feelings of obligation" (Finan and Schechter, 2011, p.iv). These patronage networks are often the only access many non-elites may have to resources, and as a result non-elites may strive to keep these channels in place as well. Patron-client relationships such as these that provide the impetus for novel forms of redistribution have the tendency to become entrenched within society as they provide the foundation for a potential positive-sum game: elites are able to gain popular support through patronage allocation that they otherwise might not have gained, while non-elite in-group members gain access to resources that otherwise would have not been available to them. As a result, these types of systems are entrenched and enduring.

Leaders can use their access to foreign aid to fund their patronage networks (Licht, 2010). Caselli and Tesei argue that "there is a governing elite that has complete control of the flow of income from [non-tax revenues], and decides whether and how much of it to invest in …'self-preservation activities'" such as vote-buying (2011, p.1).

> Large aid flows, which have been channeled through the state [expand] the public resources available to the government. In a context where wide

[11] Some scholars argue, however, that there is a movement towards the (formal) institutionalization of political power in Africa (Posner and Young, 2007).

> discretionary authority has been conferred on governing elites … and where few mechanisms have existed to ensure public accountability and transparency in decision-making, public resources could be used for political purposes including helping the government to maintain itself in power. (Mwenda and Tangri, 2005, p.453)

Using a case study of Uganda, Mwenda and Tangri show how "high levels of foreign aid have provided the government with public resources to sustain the patronage basis of the regime" (2005, p.449). They describe the context within which the governing elites were able to wield discretionary authority, resulting in "public resources [being] used in unaccountable and non-transparent ways to help the government maintain its political dominance" (2005, p.449). Though most governments agree to donor-sponsored reforms when entering into agreements with international financial institutions (IFIs), Mwenda and Tangri argue that over time leaders have learned how to "manipulate these reforms better and to use them to reproduce patronage and other practices that help them stay in power," and go as far as to say that "donor reforms have [actually] reinforced rather than reduced the propensity of political leaders to use the state and its resources to maintain themselves in power" (2005, p.451).[12]

As argued previously, the nature of the political system prevailing in recipient countries largely does not affect the aid provisions of IFIs and bilateral Western donors, and at times, these aid flows can actually serve to prop up the regimes in place regardless of their policies (Mwenda and Tangri, 2005). For example, support from the IFIs has been vital for promoting the political survival of the National

[12] Examples of patronage and other practices include influencing privatization transactions and benefitting from private sector promotions (Tangri, 1999; Mwenda and Tangri, 2005). Furthermore, leaders have also often found ways to "undercut the governance reforms designed to hold them accountable for their actions" (Mwenda and Tangri, 2005, p.451).

Resistance Movement (NRM) government under President Yoweri Museveni in Uganda (who is in power, and has been since 1986); "together with the bilateral donors from Western countries, the IFIs have provided substantial financial support to the government" (Mwenda and Tangri, 2005, p.452). Foreign aid has been "significant in consolidating the political dominance of President Museveni and the NRM" (Mwenda and Tangri, 2005, p.453).

> Large amounts of donor aid have enabled the [NRM] leadership to erect an expansive and expensive government bureaucracy and political system, which [has] permitted Uganda's leaders to rely on state patronage and the distribution of public resources to maintain themselves in power. (Mwenda and Tangri, 2005, p.464)

As a result, ultimately, "donor aid has…constituted a 'vast subsidy' to 'an otherwise puny budget' enabling the Museveni administration to 'turn government into a long gravy train'" (Mwenda and Tangri, 2005, p.458).[13]

An important point to emphasize here is that this patronage flows along *ethnic networks*, benefitting ethnic kinsmen of the political leadership (Mwenda and Tangri, 2005),[14] as is the case in most African countries. For example, in Kenya, those having ethnic affiliation with the ruling elite enjoy greater access to resources, specifically educational resources (Alwy and Schech, 2004) as well as road expenditure (Burgess, Jedwab, Miguel, and Morjaria, 2013). Similarly in Ethiopia, food aid specifically is

[13] This may largely be because "donors have permitted government officials great discretion in the management of economic and administrative reforms, [and] there has been only limited external capacity to supervise closely the management of the reforms;" however, there is some support for the notion that "donors have gradually become more aware of the abuses occurring" (Mwenda and Tangri, 2005, p.465).

[14] This patronage does not necessarily have to take the form of physical goods. Robinson and Verdier (2013), for example, discuss how employment in the public sector can be used as a method of patronage. In Uganda, for example, the lieutenant generals, major generals, and brigadiers of the Uganda People's Defense Force and the Presidential Protection Unit "are nearly all drawn from President Museveni's Banyankole (Bahima) ethnic group" (Mwenda and Tangri, 2005, p.460).

not allocated to where it is needed most (i.e., households with food insecurity / vulnerability) (Clay, Molla, and Habtewold, 1999), but rather "is being used by the Ethiopian government to transfer resources to favored regions" (Jayne, Strauss, Yamano, and Molla, 2001, p.1).

When patronage flows are used to benefit one ethnic group over another, inequalities that may have already existed between ethnic groups can become increasingly evident. Baldwin and Huber (2010) find support for this when identifying a negative relationship between high inequality between ethnic groups and public goods provision: countries with higher levels of inequality between groups as a result of substantive differences between groups have lower levels of public goods allocation.

2.2.2 Horizontal Inequalities, Relative Deprivation, and Ethnic Exclusion

Multidimensional inequalities between culturally defined groups with political, economic, and social elements can be referred to as *horizontal inequalities* (Stewart, 1999). Horizontal inequalities take into account group dimension as opposed to inequality amongst individuals. This is in contrast to most analysis of inequality, which adopts an individual-level framework (for example, analysis using the commonly employed Gini coefficient, which takes into account income inequality between individuals in a country) (Stewart, 1999).

A group-level framework is an important (though often neglected) dimension, especially when considering the effects of inequality on civil conflict. Though

individual welfare is important and can fuel personal grievances, this framework lacks the mechanism to support mobilization amongst a population.

> The majority of internal conflicts are *organized group* conflicts – they are neither exclusively nor primarily a matter of individuals committing acts of violence against others. What is most often involved is group mobilization of people with particular shared identities or goals to attack others in the name of the group. (Stewart, 2008b, p.11)

When inequalities lie along political, economic, and/or cultural cleavages, the differences between groups can become powerful mobilizing agents (Stewart, 2002). A number of studies using a variety of data sources at various levels of analysis find support for the argument that horizontal inequalities can lead to both an increased likelihood of conflict (Cederman, Wimmer, and Min, 2010; Cederman, Weidmann, and Gleditsch, 2011; Østby 2008a, 2008b; Stewart, 1999, 2002) and can instigate more intense violence within these conflicts (Murshed and Gates, 2004; Mancini, 2008).

The key aspect of horizontal inequality is that it is, by definition, relational. It accounts for the *relative* position of a group in comparison to other group(s) in the system, not its *absolute* position. How deprived of (access to) resources one group may feel relative to another – i.e., the *relative deprivation* (Gurr, 1970) that they may experience – is the important motivation behind mobilization.[15]

> *If a whole society is uniformly impoverished, there may be despair, but there is no motivation for group organization.* Even if political leaders hoped to use group mobilization as a source of power, they would find it difficult to secure

[15] Though there are studies arguing against relative deprivation theory (for example, see review in Brush [1996]), I argue that this is a function of the lack of subnational-level analysis used to measure a subnational-level relationship. By using this type of analysis here, this project sheds light on the importance of employing the correct level of analysis in order to draw the most accurate conclusions. I explore this in more detail in the research design section.

> sufficient response among followers without some underlying economic differences among the people they hoped to mobilize. (Stewart, 1999, p.6, emphasis added)

A cultural difference that is often exploited as motivation for mobilization, especially in Africa, is ethnicity.[16] Stark inequality amongst ethnic groups can be a powerful mobilizing agent. An integral reason why ethnicity works as a mobilizer is the relatively limited mobility that exists amongst groups (i.e., a member of one ethnic group cannot readily move to another ethnic group) – "the group boundaries [are] relatively clearly defined and have some continuity over time" (Stewart, 2002, p.6), and as a result inequalities amongst them can become increasingly tangible. Though the identity of ethnic groups as a whole might change to various degrees over time, there is little change at the individual-level – i.e., there is a degree of "self-sameness over time" (Brubaker, 2004, p.38) – ensuring that there is little movement between groups.

Ethnic cleavages continue to exist in Africa. Bates (1983) argues that this is because (scarce) resources can be allocated along these channels. The perception that this practice will prevail is why individuals "assume that having a member of their own ethnic group in a position of power will increase their access to patronage resources," and as a result they are inclined to vote along these lines (Posner, 2005, p.91).

[16] Though ethnicity may be the main group mobilizer in Africa, in other areas of the world, group mobilizers can include class lines, clans, religion, or regional location (which may or may not necessarily coincide with ethnic or language divisions) (Stewart, 1999).

Wantchekon (2003) finds that voters are more receptive to these types of systems that are in place than to changes in public policy, illuminating the entrenched nature of these systems. Both patrons and clients profit from the "material extra-bureaucratic benefits" that patronage politics can provide – patrons gain support while clients gain resources (Kurer, 2001, p. 68). Cultural explanations could also be used to understand this phenomenon, contending that though voting along ethnic lines might not always secure an individual benefits, it could provide them with "the intangible gains that come with upholding deeply held norms and values" (Kurer, 2001, p. 71). Furthermore, collective action problems can pose a hindrance to potential initiatives to alter the system as the immediate gains for implementing a change to this type of system are low, hence making the costs burdensome (Kurer, 2001). Posner argues,

> Despite [individuals'] preference for a situation in which resources are not distributed along ethnic lines, they find themselves trapped in an equilibrium where ethnic favoritism is the rule, and where they lose out on access to resources if they ignore its implications for political behavior. (Posner, 2005, p.104)

This, coupled with the scarcity of alternatives to this sort of system, makes voting to keep patrons in power prevalent (Kurer, 2001). Scholars argue that political leaders realize this emphasis placed on voting along ethnic lines, and as a result continue using ethnicity as a mechanism to maintain and/or gain power (Eiffert, Miguel, and Posner, 2010).

Ethnic diversity itself is not necessarily problematic, as ethnic differences alone are not necessarily enough to fuel conflict (Wimmer, Cederman, and Min, 2009).[17] Stewart (2002) cites a number of examples of pluralistic societies that have lived relatively peacefully despite diversity (e.g., Sweden, Tanzania, Uruguay, Costa Rica). Cohen writes,

> Men may and do certainly joke about or ridicule the strange and bizarre customs of men from other ethnic groups, because these customs are different from their own. But they do not fight over such differences alone. *When men* do*, on the other hand, fight across ethnic lines it is nearly always the case that they fight over some fundamental issues concerning the distribution and exercise of power, whether economic, political, or both*. (Cohen, 1974, p.94, emphasis added, as quoted in Stewart, 2008b, p.8).

Ethnicity can be problematic, however, when horizontal inequalities lie along ethnic lines (McCauley, 2013). This can lead to ethnic exclusion – when one (or more) ethnic group(s) experiences deprivation in access to political power and/or economic resources relative to other ethnic group(s) (especially those in power). These circumstances can lead to the most precarious situations wherein group leaders can (relatively) easily mobilize a group through exploiting both economic inequality *and* ethnicity. Cederman, Wimmer, and Min find support for this – that "exclusion and competition along ethnic lines are strongly associated with internal conflict" (p.113) – in their 2010 piece in which they introduce their Ethnic Power Relations (EPR) dataset – a dataset measuring the access to power of all politically relevant ethnic groups. In their study, they find that when representatives of an ethnic group are excluded from state power, there is a higher likelihood of conflict erupting. Non-tax

[17] Not all scholars agree with this; some argue that ethnic diversity is problematic within societies, especially as it breeds conflict. I argue (in more detail below) that these findings stem from using inaccurate (aggregate) measures.

revenue distributed unequally along these types of cleavages can dramatize this relative deprivation and can exacerbate (already present) horizontal inequalities, leading to (even) more (intense) conflict.

2.3 Civil Conflict

2.3.1 Greed- versus Grievance-Based Arguments

In the quantitative civil conflict literature, theories behind what fuels conflict are often divided up into two camps: greed-based and grievance-based arguments. Much of the literature, especially the most influential quantitative studies, supports the greed-based theory (Fearon and Laitin, 2003; Collier and Hoeffler, 2004). These studies argue that competition over access to and control of power and/or resources is what drives rebellion and conflict as 'greedy' individuals seek to take advantage of a potentially lucrative situation. For example, many resource curse arguments posit that civil conflict occurs as a result of rebels wanting to gain access to the abundant resource.

Meanwhile, grievance-based arguments claim that anger and resentment shape 'grievances' toward the status quo, pushing those upset to rebel. Grievance-based arguments – such as inequality and relative deprivation arguments – have in large part been discounted in the quantitative literature as a result of the dearth of statistically significant findings in its support (see Lichbach [1989] and Brush [1996] for reviews). The ubiquitous nature of grievances worldwide, and the fact that they do not always result in conflict, is a common argument that is often used by those

disagreeing with grievance-based arguments (Snyder and Tilly, 1972; Collier and Hoeffler, 2004; Collier, 2007). Some scholars argue for the importance of ethnic-based grievances specifically in fueling conflicts (Horowitz, 1985; Gurr 1993, 2000), though the fact that these grievances also do not always result in conflict is a common counter-argument (Fearon and Laitin, 2003).

This lack of quantitative findings may be a result of "inappropriate conceptualization and imperfect measurements" of these concepts (Cederman et al., 2011, p.478). Studies discounting grievance-based arguments often classify inequalities at the (aggregate) state-level based on individual-level information using the Gini coefficient (measuring income distribution between individuals). This essentially measures whether an individual is driven to rebel as a result of her/his personal status within society, and then creates a state-level index based on this value. It is difficult to believe that a certain individual may realize how they compare relative to every other individual within a society. Even if so, it does not seem feasible that this individual might rebel without the help of others. Unsurprisingly, the literature agrees: statistical findings supporting this notion are weak.

Studies discounting ethnicity-based arguments often classify the role of ethnicity at the (aggregate) state-level as well, and account for the level of diversity at large as opposed to examining the actual micro-level relationships amongst ethnic groups within a country. These studies often do this through employing measures such as the ethnolinguistic fractionalization (ELF) index, which measures the probability that two

randomly drawn individuals in a country are from different ethnolinguistic groups. These studies assume that more diversity in a country will lead to more conflict, while not accounting for the status of the various ethnic groups or how the groups may interact with each other (Fearon and Laitin, 2003). "The regional distribution of ethnic groups may be more important than the extent of ethnic fragmentation in the country as a whole" (Buhaug and Rød, 2006, p.321; see also, Sambanis, 2003). Furthermore, not accounting for whether or not ethnic groups actually engage in political competition (Posner, 2004) or what their status is within society, especially relative to other ethnic groups (Cederman et al., 2010), can result in inappropriate measures for assessing hypotheses of ethnic diversity. Again, unsurprisingly, statistical findings examining this effect of ethnicity (at the aggregate-level) on conflict are weak.

Within the qualitative literature, the link between inequality, ethnicity, and civil conflict is stronger; this may be a result of case studies allowing scholars to examine these concepts subnationally (Wood, 2003; Stewart, 2008a). Dismissing grievance-based arguments in quantitative studies based on conclusions drawn from inaccurately measured concepts that do not account for micro-level processes may thus be misguided.

In recent years,

> some quantitative studies have started to appear that argue that the current literature's failure to connect distributional asymmetries with conflict behavior may actually be due to inappropriate conceptualization and imperfect

> measurements, rather than reflecting a fundamental absence of any causal effect. (Cederman et al., 2011, p.478)

They employ quantitative methods using subnational data to better examine this relationship (e.g., Østby, 2008a). This project seeks to do this as well; I discuss this in further detail in the following chapter

2.3.2 Civil Conflict in Africa

Intrastate conflict has always been more prevalent than other types of conflict (namely, interstate conflict). This relatively higher prevalence of intrastate conflict can especially be seen in the years since the end of the Cold War. Figure 2.1 helps display this prevalence of intrastate conflict. These conflicts are especially prevalent in Africa as compared to other regions of the world. Figure 2.2 help display this prevalence of conflict in Africa. This high frequency of conflict in this region makes the need to understand the triggers, risks, and dynamics associated with conflict in this region specifically especially important.

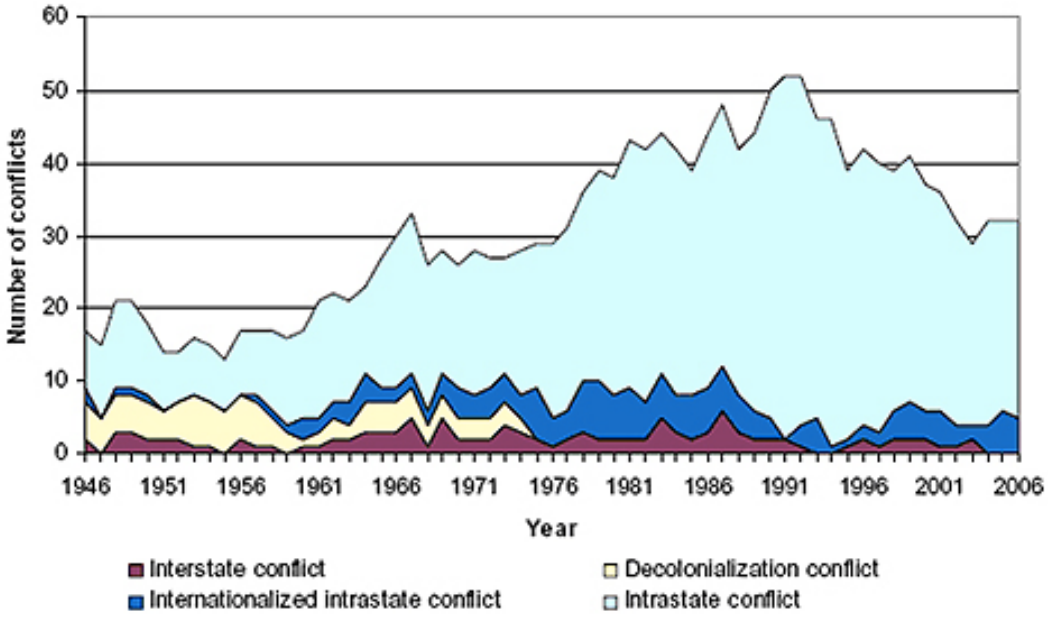
There may be a number of reasons why the prevalence of civil conflict is high in sub-Saharan Africa, *inter alia "*high levels of poverty, failed political institutions and economic dependence on natural resources" (Elbadawi and Sambanis, 2000, p.244). However, though these failures of formal institutions may play a critical role, informal institutions play an equally (if not more) important role in shaping African politics and contributing to the factors that can lead to civil conflict (Bratton, 2007).[18]

[18] North defines institutions as "any form of constraints that human beings devise to shape human interaction…both formal constraints – such as rules that human beings devise – and informal constraints – such as conventions and codes of behavior" (1990, p.4).

Arriola finds that "political conflict across Africa is often linked to the pervasive use of patronage in retaining control of the state" (2009, p.1339).

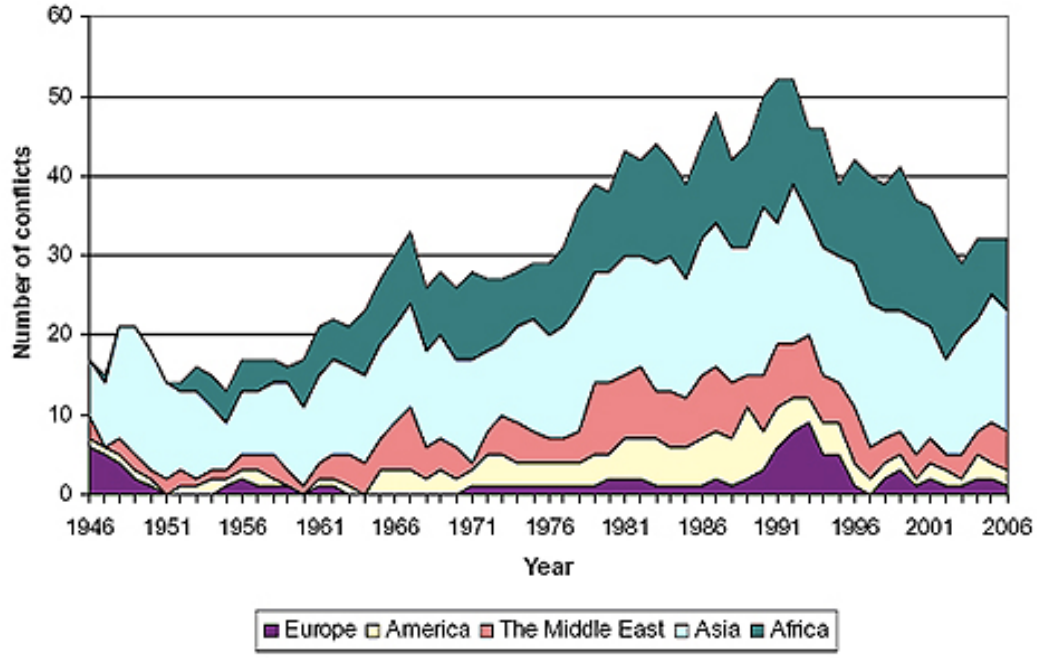
Group-based dynamics can also play a critical role. "In a pioneering statistical test, Barrows (1976) detected an influence of group-level differences on conflict in sub-Saharan Africa" (Cederman et al., 2011, p.480). Since then, a number of studies have also found support for this relationship through the examination of country-case studies, lending credence to the argument that horizontal inequalities (i.e., group-level differences) play an important role in fostering civil conflict.

Figure 2.1. Comparison of Conflict Types.



Graph from Buhaug, Gates, Hegre, and Strand (2007).

Figure 2.2. Comparison of Conflict by Region.



Graph from Buhaug, Gates, Hegre, and Strand (2007).

In Africa specifically, Langer (2008) finds that mobilized horizontal inequalities lead to conflict through a comparative analysis of Ghana and Côte d'Ivoire. The two states have a number of similar structural features (e.g., "population size, location, geography and climate, variety and distribution of ethnic groups, regional developmental inequalities, economic structure and level of development"), yet Côte d'Ivoire experienced a violent, national conflict (along a horizontal-inequality-cleavage) while Ghana has not, as a result of a mobilized horizontal inequality (Langer, 2008, p.163; see also Langer, 2005).

Ukiwo (2008) also finds support for horizontal inequalities transpiring into ethnic violence in his examination of ethnic group dynamics in two cities in Nigeria, as does Stewart (2002) in her discussions of Uganda and South Africa. Outside of Africa, a number of case studies have been conducted in other regions of the world lending further support to the relationship between horizontal inequalities and conflict: in Asia, specifically Indonesia (Mancini, 2008), Nepal (Murshed and Gates, 2005), Sri Lanka, Fiji, and Malaysia (Stewart, 2002), and Southeast Asia (Brown, 2008); in Latin America, specifically Bolivia, Guatemala, and Peru (Caumartin, Molina, and Thorp, 2008), and Mexico (Chiapas) and Brazil (Stewart, 2002); and in the West, specifically North Ireland and the United States (Stewart, 2002). In addition to case studies, survey data (drawing on Demographic and Health Surveys [DHS]) have also been implemented to examine the relationship between horizontal inequalities and civil conflict in a number of studies (Østby 2008a, 2008b; Østby, Nordås, and Rød,

2009), as well as some quantitative studies in more recent years (Cederman et al., 2011; Gubler and Selway, 2012).

2.3.3 The Analysis of Civil Conflict

Until recent years, much of the quantitative research conducted on civil conflict has been at the (aggregate) state-level. Buhaug and Rød argue that "the empirical study of civil war often suffers from a disturbing mismatch between theory and analysis. While standard statistical investigations are conducted exclusively at the country level, most hypotheses actually pertain to sub-national conditions" (2006, p.316). Though hypotheses are made about the effect of factors such as terrain, natural resources, or inequality, measurement of these concepts is inaccurate, and resulting conclusions drawn based on these data should be treated as tentative at best. Buhaug and Rød describe some of these problematic, aggregate measures:

> Rough terrain is approximated by the average share of mountainous and forested terrain in the country; availability of valuable natural resources is proxied by the ratio of primary commodity exports to GDP; and a Gini coefficient of population dispersion serves to measure the geographic distribution of the population in the country. (Buhaug and Rød, 2006, p.316)

Though aggregate measures are not always problematic – e.g., when measuring political aspects of a government regime – they become more so when analyzing factors that can vary extensively between regions subnationally – e.g., ethnicity, inequality, etc. (Buhaug and Rød, 2006).

In recent years, there has been a push towards disaggregating conflict data (as well as data on factors relating to conflict) in order to provide a more nuanced analysis of

subnational relationships, spatially and temporally. As databases like the Global Database of Events, Language, and Tone (GDELT); the Uppsala Conflict Data Program – Georeferenced Event Dataset (UCDP GED); the Armed Conflict Location and Event Data Project (ACLED); and the Social Conflict in Africa Database (SCAD) become increasingly popular, studies have begun making use of subnational-level data to more accurately examine the relationships between various factors and conflict about which they hypothesize. "The ability to specify and test causal mechanisms, and thereby address a characteristic limitation of more highly aggregated large-N studies, constitutes a noteworthy advancement in conflict research" (Donnay, Gadjanova, and Bhavnani, 2014, p.44).

Drawing from the foreign aid, inequality and ethnic exclusion, and sub-Saharan African civil conflict literatures discussed in this chapter, in the following chapter I formulate a theoretical framework to shape the dissertation project. Based on the theory put forth, I deduce a number of hypotheses. I then present a research design that will allow for the presented hypotheses to be accurately tested.

3 Theory, Hypotheses, and Research Design

To construct a theoretical framework to help explain under what circumstances foreign aid influences civil conflict and the roles that ethno-politics and inequality may play, I have synthesized findings from the relevant literatures explored above. Overall, it is my contention that aid allocation strategies (i.e., *how* aid is dispersed within a state) play a more important role than the monetary amount of aid that a state receives when it comes to its effects on civil conflict. I argue that this is a result of the roles that ethnic inequalities and relative deprivation play.

Within the international system, in which aid donor and recipient countries reside, there are multiple actors, which include the government/state leader, and the state constituency.[19] All involved rational actors share a similar preference, and that is to maximize their own profits/gains. The easiest way for the government/state leader to maximize its profit is to remain in office, as this allows her/him access to most state-level monetary decisions as well as offers opportunities for kleptocracy (i.e.,

[19] The donor country is arguably also an actor in this equation. Although it does not become involved in the conflict, it may have motives to ensure that aid keeps flowing, creating the context for conflict. As mentioned previously, however, donor states do not seem to alter aid flows to a large extent based on the behavior of the recipient state (Alesina and Dollar, 2000; Sollenberg, 2009; Ghosh, 2012). (For instance, for a relatively current example, refer to US policy toward Equatorial Guinea: "United States policy towards Teodoro Nguema Obiang Mbasogo, the dictator/president of Spanish-speaking Equatorial Guinea, is a perfect case study in the hypocrisy of Western leaders when it comes to African strongmen. Even as [then Secretary of State] Hillary Clinton [wrapped] up her five country African tour promoting democracy and good governance [during August 2012], representatives of her government and international development organizations continue to ignore many corrupt practices in oil-rich, democracy-poor Equatorial Guinea" [Attiah, 2012]). As a result, I choose to not include donor states within my theoretical framework here.

opportunities for the embezzlement of state funds). These decisions are made in regards to revenues raised through both taxation and outside revenues, such as foreign aid.

The constituency's pursuit of these monetary incentives, however, is admittedly different. An individual can receive profits in one of two ways: either from the state, or by gaining access to government revenues through rebellion. In states where informal institutions reign supreme, "[normative] conventions and codes of behavior" may dictate how goods are administered by the state (Bratton, 2007, p.96). In African states, this places emphasis on ethno-political networks and channels through which patronage may flow. Leaders know that they can use patronage as a means to secure votes and allegiance. As discussed in the previous chapter, they are able to use non-tax revenues (i.e., foreign aid) in this endeavor (see for example, Mwenda and Tangri, 2005; Licht, 2010).

These patronage networks are so entrenched within these states that the constituency also knows to expect access to these types of resources. "Rulers in modern nation-states are no longer legitimized by the principles of dynastic succession, God's grace, or civilizational progress…they are expected to care for their own, ethnically defined people" (Cederman et al., 2010, p. 94; see also, Wimmer, 2002). Individuals that are ethnic kin to those in power hence know to exploit this relationship to reap benefits.

With these benefits going to ethnic in-group members, excluded populations are consequently formed. As increasing amounts of patronage flow to in-group members to the detriment of out-group members, inequalities lying along ethnic lines will arise. With these rising inequalities, grievances will accumulate among the excluded population. Here I assume that excluded populations are cognizant of these inequalities between their group and other groups, and that they are aware of the patronage that others may receive.[20] , These grievances can then ultimately fuel conflict. Here I assume that excluded individuals will share these grievances, which will in turn provide a common grievance around which the group can rally. These theoretical relationships will be examined in more detail below.

3.1 Foreign Aid and Civil Conflict

Greed-based arguments for civil conflict, especially in the resource curse literature, suggest that increased amounts of a resource increase the value of the 'prize' and hence provide a heightened opportunity for greedy rebels to revolt (Collier and Hoeffler, 2000b; Fearon and Laitin, 2003). In line with this argument, an increase in the amount of gross foreign aid ought to lead to an increase in the onset and intensity of civil conflict, especially as rebels may believe they can gain access to it. This leads to the first set of hypotheses:

> **H1A:** As aid flows to a state increase, the likelihood of civil conflict will also increase.
>
> **H1B:** As aid flows to a state increase, the intensity of civil conflict will also increase.

[20] Future fieldwork and interviews with excluded populations would do well to illuminate the extent to which this assumption holds.

There are some who argue that it is the *dependence* on access to these resources that is detrimental, suggesting that non-tax revenue might not necessarily have a detrimental effect, but may begin to display this relationship after a certain amount of non-tax revenue is introduced into the budget due to the weakening effect it may begin to have on both state capacities and economic sectors within society. A number of studies find large amounts of foreign aid lead to problems with political institutions, which can play a part in weakening state capacity (Knack, 2001; Therkildsen, 2002; Bräutigam and Knack, 2004; Djankov et al., 2008; Clemens et al., 2012). Weak state capacity can in turn lead to an increased likelihood and a higher level of intensity of conflict. With access to non-tax revenue, government leaders do not have the need to tax their constituencies, and as a result have less incentive to create strong bureaucratic institutions (see Snyder and Bhavnani, 2005).

> When citizens are untaxed by governments, they have less power over them: they may have less information about government activity, weaker incentives to monitor government behavior, and fewer instruments at their disposal to withdraw support from governments; accordingly, [these types of state leaders] may have little compulsion to respond to the demands of their citizens or create structures that engage their citizens. (Humphreys, 2005, p.512)

Large amounts of aid can also have detrimental effects on state economic institutions (Rajan and Subramanian, 2005; Adam, 2006; Aiyar et al., 2006; Moyo, 2009). Economies that are dependent on non-tax revenue to bolster their budgets may have weak manufacturing sectors (as a result of the 'Dutch Disease') and may see a reduction in the competitiveness of their economic sectors (Aiyar et al., 2006). These

harmful institutional effects can do much to fuel grievances in the public, which can in turn fuel the likelihood and intensity of conflict.

In line with these arguments, after states receive foreign aid inflows surpassing a certain threshold, both state capacities and economic sectors within society will be weakened as a result of the aid curse. A set of hypotheses based on these theories suggests:

> **H2A:** As aid flows to a state increase, the likelihood of civil conflict will increase following a certain threshold (i.e., U-shaped curve).
>
> **H2B:** As aid flows to a state increase, the intensity of civil conflict will increase following a certain threshold (i.e., U-shaped curve).

3.2 Ethnic Inequality and Civil Conflict

"Armed rebellions are more likely to challenge states that exclude large portions of the population on the basis of ethnic background" (Wimmer et al., 2009, p.316). This argument assumes that since grievances are high, conflict will be more likely. Similarly, high levels of grievances, especially when fueled by inequality/exclusion, should also push rebellions that occur to be more intense in terms of fatalities (see Murshed and Gates, 2004).[21] This leads to:

> **H3A:** As the size of the ethnically excluded population increases, the likelihood of civil conflict will also increase.

However, as discussed in the previous chapter, much of the ethnic inequality literature draws on the notion of horizontal inequalities (see Stewart, 2008a). When

[21] Murshed and Gates find "the intensity of conflict across the districts of Nepal [to be] significantly explained by the degree of inequalities," stating that "the causes of the conflict would suggest that grievance…is the main motivating force" (2004, p.ii).

examining the relationship between ethnic groups subnationally within a state, the important role of a group's *relative* status is highlighted. When an individual benefits to the detriment of another, the excluded individual is said to feel 'relative deprivation,' especially if the individual had expected benefits yet was deprived of their aspirations. In order to feel 'relative deprivation,' it is assumed that the individual is cognizant of the gains received by others (of which he is being deprived). Davies (1962) argues that "frustration resulting from an evolving gap between individual aspirations and actual economic status" is what fuels conflict (Cederman et al., 2011, p.479). There is not much backing however, quantitative or otherwise, for this phenomenon at the individual-level. This is likely a result of the lack of a mobilization mechanism that can be used as an impetus to initiate conflict.

When examining relative deprivation theory as a group-level phenomenon, the notion of collectivity can serve as a mobilization mechanism. These studies argue, "conflicts like revolutions and collective violence are primarily responses to an intolerable gap between normative expectations and actual achievements c*reated by cumulated experiences of hardship in a collectivity*, i.e., as a result of an increase in relative deprivation" (Korpi, 1974, p.1569, emphasis added). Groups must have a common identity or a collective unifying structure, however, around which to rally (Tilly, 1978; Østby, Nordås, and Rød, 2009), must be able to differentiate their group from others (Stewart, 1999), and must all experience these grievances as a result of being

aware of the benefits other groups are receiving to their detriment. In African politics, this common identity tends to be centered on ethnicity.[22]

When inequalities lie along ethnic differences, a precarious condition may be created. Group leaders can exploit this characteristic to make categorization as a specific type of ethnicity more salient. These differences can become entrenched and dramatized, especially as a result of the 'sticky' nature of ethnicity (i.e., it is difficult, if not impossible, to alternate between ethnicities). As a result of their perceived status within society (assuming they are aware of this status) resulting from intergroup comparisons involving horizontal inequalities (assuming they are aware of the status of others), resentment may grow (Petersen, 2002; Cederman et al., 2011). Furthermore, political and economic asymmetries that the group may be subject to as a result of their status within society may be "transformed into grievances through a process of group comparison driven by collective emotions;" these grievances may then in turn "trigger violent collective action through a process of group mobilization" (Cederman et al., 2011, p.481) after being "cognitively linked to social identities through self-categorization" (Hogg and Abrams, 1988, p.21). Ethnic groups' preexisting social networks might also provide micro-level organizational structure that can aid in mobilization endeavors (Hechter and Okamoto, 2001; Cederman et al., 2011). This leads to:

[22] In other areas, different features may be used for group differentiation. For example, class lines (with some ethnic dimensions), such as in Central America; clans (different lineages within broadly the same ethnic group), such as in Somalia; religion, such as in Northern Ireland and the Balkans; regional location (not coinciding with ethnic or language divisions), such as in Biafra, Eritrea, and East Pakistan (Bangladesh) (Stewart, 1999).

H3B: Excluded ethnic groups within a state will have a higher likelihood of civil conflict.

H3C: Excluded ethnic groups within a state will be involved in higher intensity civil conflicts.

3.3 Foreign Aid, Ethnic Inequality, and Civil Conflict

In order for conflict to occur, in line with collective action arguments, motivation is needed in conjunction with the ability of a group to mobilize. Ethnicity can offer an important mobilizing source in organizing political action through offering a collective unifying identity (Scarritt and Mozaffar, 1999). I argue that the allocation of foreign aid in a way that benefits some to the detriment of others – i.e., when it is allocated along ethno-political patronage channels to benefit ethnic kinsmen / in-group members in disservice to excluded ethnic groups – can serve as a motivation for excluded populations, assuming that they are aware of the benefits other groups are receiving that they are not. When excluded ethnic groups become cognizant of their deprivation of access to resources relative to in-group members, grievances can arise. These grievances can more easily translate into conflict, as well as more intense conflict, if collective action problems are surmounted; cleavages along ethnic lines can provide this mobilization mechanism. Aid projects can serve as patronage (Mwenda and Tangri, 2005); the way they are distributed within a state can have a favorable effect for in-group members. This deprivation can lead excluded groups to rebel if/when they become aware of this deprivation, and can provide fuel for intense conflict. "The most excluded groups will…be most likely to support armed organizations that challenge the government. Given nationalist principles of political

legitimacy, feelings of resentment will be widespread and can be channeled into successful collective action" (Cederman et al., 2010, p.95; see also, Petersen, 2002). This leads to:

> **H4A:** Civil conflicts involving an excluded ethnic group will be more intense as aid flows increase.
>
> **H4B:** Civil conflicts involving an excluded ethnic group will be more intense as aid flows increase after a certain threshold (i.e., U-shaped curve).

As the existence of an aid project being used as patronage to the benefit of included members is the impetus for grievance for excluded members (assuming that excluded members are aware that aid projects are going to others to their detriment), I argue that excluded populations will be more aware of the uneven allocation of aid in close geographic proximity to aid projects, and will be less aware of this at farther geographic distances. As a result, civil conflicts involving excluded members happening in close geographic proximity to aid projects will be most intense, while those farther away will be less intense. This argument leads to the next hypothesis:

> **H5A:** Civil conflicts involving an excluded ethnic group will be more intense in closer geographic proximity to aid projects.

Alternatively, it could be argued that at the closest geographic distances, excluded populations may be able to take advantage of some aid projects even if it was not intended for them. For example, road or rail transport that is allocated with the intent of being of benefit for an included group could still benefit nearby excluded groups. However, at geographic distances a bit farther away, aid projects allocated for the benefit of included groups might have a different effect. At these distances, excluded

groups may be too far away to be able to take advantage of these resources as well, yet may be physically close enough to the project(s) to be cognizant of the fact that they exist while their group is unable to take advantage of them. Assuming that they are cognizant of this fact, in these situations is when relative deprivation will be most salient and conflict intensity will as a result be highest. At farther geographic distances to aid, excluded groups will likely be unaware of the effects of aid, and as a result, the project(s) will no longer result in heightened conflict intensity. This argument leads to the next hypothesis that accounts for this curvilinear relationship:

> **H5B:** Civil conflicts involving an excluded ethnic group will be less intense at the closest geographic distance to aid projects, will become more intense in farther geographic proximity to aid projects, and then will become less intense again at the farthest geographic distance to aid projects (i.e., a U-shaped curve).

I am interested in measuring the spatial relationship between aid projects and conflict. It is not possible to measure the geographic distance between an aid project and the likelihood of a conflict (i.e., if the conflict did not occur, there would be no distance to measure). Consequently, I only offer a hypothesis regarding conflict intensity here, not conflict onset.[23] This is also an example of a research question that cannot be tested at the aggregate state-level, as the hypothesis refers to subnational geographic distances. I explore the importance of subnational analysis in further detail in the following research design section. Table 3.1 is a table of the hypotheses presented in this chapter and helps to highlight their levels of analysis.

[23] One way to test the likelihood of conflict onset in this situation is through developing artificial geometric units, or grid cells, to use as the unit of analysis (instead of the conflict itself), as Buhaug and Rød do in their 2006 study. I choose to not implement this approach and to only use data from existing conflicts.

Table 3.1. Hypotheses and Their Levels of Analysis.

	***Level of Analysis*:**	
	Aggregate-Level	**Disaggregate-Level**
Hypotheses about Aid and Civil Conflict		
A Linear Relationship		
H1A: As aid flows to a state increase, the likelihood of civil conflict will also increase.	☑	
H1B: As aid flows to a state increase, the intensity of civil conflict will also increase.		☑
A Threshold Effect		
H2A: As aid flows to a state increase, the likelihood of civil conflict will increase following a certain threshold (i.e., U-shaped curve).	☑	
H2B: As aid flows to a state increase, the intensity of civil conflict will increase following a certain threshold (i.e., U-shaped curve).		☑
Hypotheses about Ethnic Exclusion and Civil Conflict		
H3A: As the size of the ethnically excluded population increases, the likelihood of civil conflict will also increase.	☑	
H3B: Excluded ethnic groups within a state will have a higher likelihood of civil conflict.		☑
H3C: Excluded ethnic groups within a state will be involved in higher intensity civil conflicts.		☑
Hypotheses about Aid, Ethnic Exclusion, and Civil Conflict		
A Linear Relationship		
H4A: Civil conflicts involving an excluded ethnic group will be more intense as aid flows increase.		☑
A Threshold Effect		
H4B: Civil conflicts involving an excluded ethnic group will be more intense as aid flows increase after a certain threshold (i.e., U-shaped curve).		☑
Hypotheses about Relative Deprivation and Geographic Proximity		
A Linear Relationship		
H5A: Civil conflicts involving an excluded ethnic group will be more intense in closer geographic proximity to aid projects.		☑
A Threshold Effect		
H5B: Civil conflicts involving an excluded ethnic group will be less intense at the closest geographic distance to aid projects, will become more intense in farther geographic proximity to aid projects, and then will become less intense again at the farthest geographic distance to aid projects (i.e., a U-shaped curve).		☑

Though prior studies have examined the relationship between aid locations and civil conflict as well as the relationship between horizontal inequalities and civil conflict, this project is the first to examine the role of inequality in shaping the intensity of conflicts that might be fueled by aid. This is an important link to examine as it speaks to the importance of monitoring *how* aid is distributed subnationally within a state, especially in ethnically diverse and horizontally unequal states. This is especially important in Africa where informal institutions, like ethno-political networks, can have such a profound effect on political processes. Through examining this joint effect, this dissertation project makes a contribution to this burgeoning field of literature.

3.4 Research Design

Until recently, most quantitative studies exploring the aid-conflict nexus as well as the relationship between horizontal inequalities and conflict have used aggregate-level data to conduct state-level analysis. Capitalizing on newly available disaggregated datasets to explore subnational-level hypotheses has been a relatively new phenomenon. Using aggregate-level analysis might not be problematic when examining the effect of government-level measures that are constant across a state (e.g., regime type); it does become problematic, however, when applying measures and analysis at this level when exploring subnational-level questions and theories (e.g., using an index to measure population dispersion, since this assumes perfectly uniform dispersion across the entire state).

As is often done within the literature, in the following chapter I explore the relationships presented in the hypotheses drawing on standard aggregate-level analyses (for some examples, see: de Ree and Nillesen, 2009; Sala-i-Martin and Pinkovskiy, 2010; Savun and Tirone, 2011, 2012; Nunn and Qian, 2012); this is a state-level (aggregate) statistics chapter.

I then compare these findings to findings in the subsequent chapter in which I take advantage of newly available disaggregated datasets in order to examine relationships below the state-level – e.g., exploring the roles of: aid project location; the status of various ethnic groups, relative to each other; and the geographic distance between aid projects and conflict sites. This is a subnational-level (disaggregate) statistics chapter. It is my contention that these latter findings offer much more accurate measurements and I am hence able to draw much more valid conclusions from the results.

In order to further investigate the subnational processes at play, I then follow this chapter with a country-case study chapter of the Democratic Republic of the Congo (DRC). In this analysis, I take advantage of geographic information systems (GIS) analysis. Using ArcGIS, I employ hot spot analysis to determine the spatial relationship between where aid projects are located, ethnic settlement patterns, and ethnic conflict locations. Given the DRC's history of resource dependence and its allocation leading to conflict, as well as receipt of high levels of aid and numerous instances of civil conflict along ethnic lines, it is fitting to use it as a country-case

study to determine how the similar allocation of aid resources affects ethnic conflict in the state.

4 National-Level (Aggregate) Statistical Analysis

I am interested in examining the role that aid flows and inequality / ethnic exclusion might play in civil conflict. In this chapter I investigate these relationships at the aggregate-level, replicating the way studies exploring these variables test their theories in the literature. My theory is that inequality and ethnic exclusion within a state dictate *how* aid is allocated, and this in turn affects civil conflict within a state. However, when using aggregate measures, it is not possible (by definition) to measure these types of subnational processes. As a result, within aggregate analyses, I am forced to use proxy, aggregate measures to account for the mechanisms I am trying to measure. I, therefore, do not expect to obtain (many) significant results at this level of analysis, similar to the dearth of statistically significant findings in this regard in the literature. I argue, however, that this lack of significant findings is inaccurate. As a result, in the following chapter, I explore these relationships at the subnational-level using disaggregated data, resulting in more accurate and significant findings.

4.1 Data

4.1.1 Dependent Variable

The dependent variable in this level of analysis is *the onset of armed civil conflict* in Africa– a dichotomous measure of whether or not an African state sees the onset of a civil conflict in a given year. Interstate and extra-systemic conflicts are not included

in this variable. These data come from the UCDP/PRIO Armed Conflict Dataset (ACD), v.4-2009 (Gleditsch, Wallensteen, Eriksson, Sollenberg, and Strand, 2002). The UCDP describes armed conflict as: "A contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year" (UCDP, 2009). When truncating the sample to look only at African countries, 1,477 conflict onset-years of the 2,098 total conflict onset-years were dropped as they did not include African states (i.e., 29.6% of these cases were kept). Of these cases, only 82 conflict onset-years were civil conflict onsets versus interstate or extra-systemic conflicts (i.e., 13.2% of these cases were kept).

4.1.2 Independent Variables

There are two main independent variables in this level of analysis. The first is *foreign aid* – a measure of the total amount of aid inflows that a state receives in a given year in constant 2000 US Dollars.[24] This includes all development financing activity, which includes "loans or grants from governments, official government aid agencies, and inter-governmental organizations (IGOs) intended mainly to promote the economic development and welfare (broadly defined) of developing countries" (Nielson, Power, and Tierney, 2010, p.7). These data come from the AidData project, v.2.1 (Tierney et al., 2011). Though aid disbursement flows might be a more accurate measure of the level of aid entering a country, these data are unfortunately missing

[24] The dataset I use here offers a variable measuring aid inflows in constant 2000 US dollars, which helps account for inflation.

for most observations in the dataset.[25] As a result, I choose to use aid commitment flows here as a measure of total aid flows; this is consistent with what is commonly done in the literature (for example, see: Findley et al., 2010; Williamson, 2010). When truncating the sample to look only at aid going to African countries, of the total of approximately $5.765 trillion given as aid in the entirety of the dataset, about $1.183 trillion went directly to specific African states (i.e., about 20.5% of funds donated in the dataset were kept for analysis).[26] These data come from a variety of donors, including both bilateral (specific states, e.g., Belgium or the US) and multilateral (organizations, e.g., the World Bank or the African Development Bank).

To account for endogeneity – especially whether aid flows lead to conflict, or whether conflict can lead to alterations in aid flows[27] – I lag this variable. I also include the lagged dependent variable, prior conflict onset, as a control variable in my models here; I discuss this in more detail in the following control variables section. Through lagging my variables and accounting for prior conflict, I feel more comfortable drawing the conclusion that conflict onset in my models follows aid flows. Variable lags are discussed in more detail below in the discussion of methods.

[25] "The database contains information on both commitments and disbursements, but the disbursement data is much less complete – the commitment field is populated 99.83% of the time, while the disbursement field is populated only 48.36% of the time" (Tierney et al., 2011, p.1896-8).
[26] Some aid projects included in the dataset were earmarked for the African region as a whole. As the specific recipient of this aid is unknown from these data, I do not include them in my analysis here.
[27] Even though the literature suggests that aid flows are not much affected by outside factors once started, it is important to take this endogeneity issue into account when modeling, as it is possible for outside factors to affect aid flows (for example, see Hoffman, 2004), even though it is not typically seen.

The second independent variable of interest is the effect of inequality, specifically *ethnic exclusion* – a measure of the size of the ethnically excluded population in an African state as a proportion of the state's total population. These data come from the Ethnic Power Relations (EPR) dataset, v.3.0 (Cederman, Min, and Wimmer, 2009). An ethnic group is defined as politically relevant if "at least one political organization claims to represent it in national politics or if its members are subjected to state-led political discrimination," where discrimination is defined as "political exclusion directly targeted at an ethnic community" (Cederman et al., 2010, p.99). Here ethnicity is defined as "any subjectively experienced sense of commonality based on the belief in common ancestry and shared culture" (Cederman et al., 2010, p.98). In this dataset, power-access coding is limited to executive power only. When truncating the sample to look only at ethnically excluded populations in African countries, of the 7,155 total country-years, 5,175 were dropped as they did not include African states (i.e., 1,980 country-years, or 27.67% of cases, were kept).

I choose to use the EPR dataset here instead of other datasets measuring ethnicity and group status (e.g., the Minorities at Risk [MAR] project) as the EPR dataset explicitly takes into account the role of the state in determining the status of ethnic groups (i.e., whether they are excluded, etc.).[28] As my theory is centered on the effect of aid

[28] Furthermore, MAR has led to "somewhat conflicting results regarding the question [of] whether or not political disadvantage and discrimination increase the likelihood of ethnic rebellion," which may be a result of the dataset's inherent coding structure (Cederman et al., 2010, p.90). "The MAR data set 'hardwires' the degree of power access into the sample definition by excluding groups in power from systematic consideration. This reduces the comparative horizon and thus makes it harder to capture the effects of political exclusions in unambiguous ways;" this becomes problematic when the political status of an ethnic group changes (i.e., from discriminated minority to ruling elite) (Cederman et al., 2010, p.91). Furthermore, "focusing on minorities conflates the demographic concept of numerical domination with political exclusion;" this can be problematic in states where there are ruling minorities

allocation by the state specifically, using an aggregate measure that at least draws on this subnational mechanism to shape this variable is important. As mentioned before, I lag this variable for analysis.

4.1.3 Control Variables

A number of control variables are included, in line with what is typically seen in the literature. As mentioned before, I include prior conflict onset – i.e., the lagged dependent variable – as the prior onset of conflict has an effect on the likelihood of future conflict onset; these data are from the UCDP/PRIO ACD (Gleditsch et al., 2002). GDP per capita is included, as it has been shown to have an effect on determining aid flows, as poorer countries are often those who receive aid (Boone, 1996); it is also a contributing factor to the occurrence of armed conflict as poverty is a leading contributor to unrest (Fearon and Laitin, 2003). These data are from the Penn World Tables (Heston, Summers, and Aten, 2009) and are lagged for analysis. I include the size of the general population as well, as the literature suggests that it has an effect on aid flows (Boone, 1996) as well as armed conflict (Hegre and Sambanis, 2006). These data are also from the Penn World Tables (Heston et al., 2009) and are lagged for analysis. Lastly, regime type is included as literature suggests that it can have an effect on armed conflict, where more democratic states see less instances of armed conflict, while more autocratic states see more (Hegre, Ellingsen, Gates, and Gleditsch, 2001). Regime type could also possibly have an effect on aid flows and the structure and extent of patronage networks that play a role on the gravity of ethnic

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or complex coalitions of ethnically defined elites, or in situations where ethnic groups share power (and are therefore not classified as "at risk") (Cederman et al., 2010, p.91).

exclusion. These data are from the Polity2 index of the Polity IV project (Marshall and Jaggers, 2002), a modified version of the commonly used Polity variable for time-series data, which ranges from -10 (full autocracy) to 10 (full democracy), and are lagged for analysis.

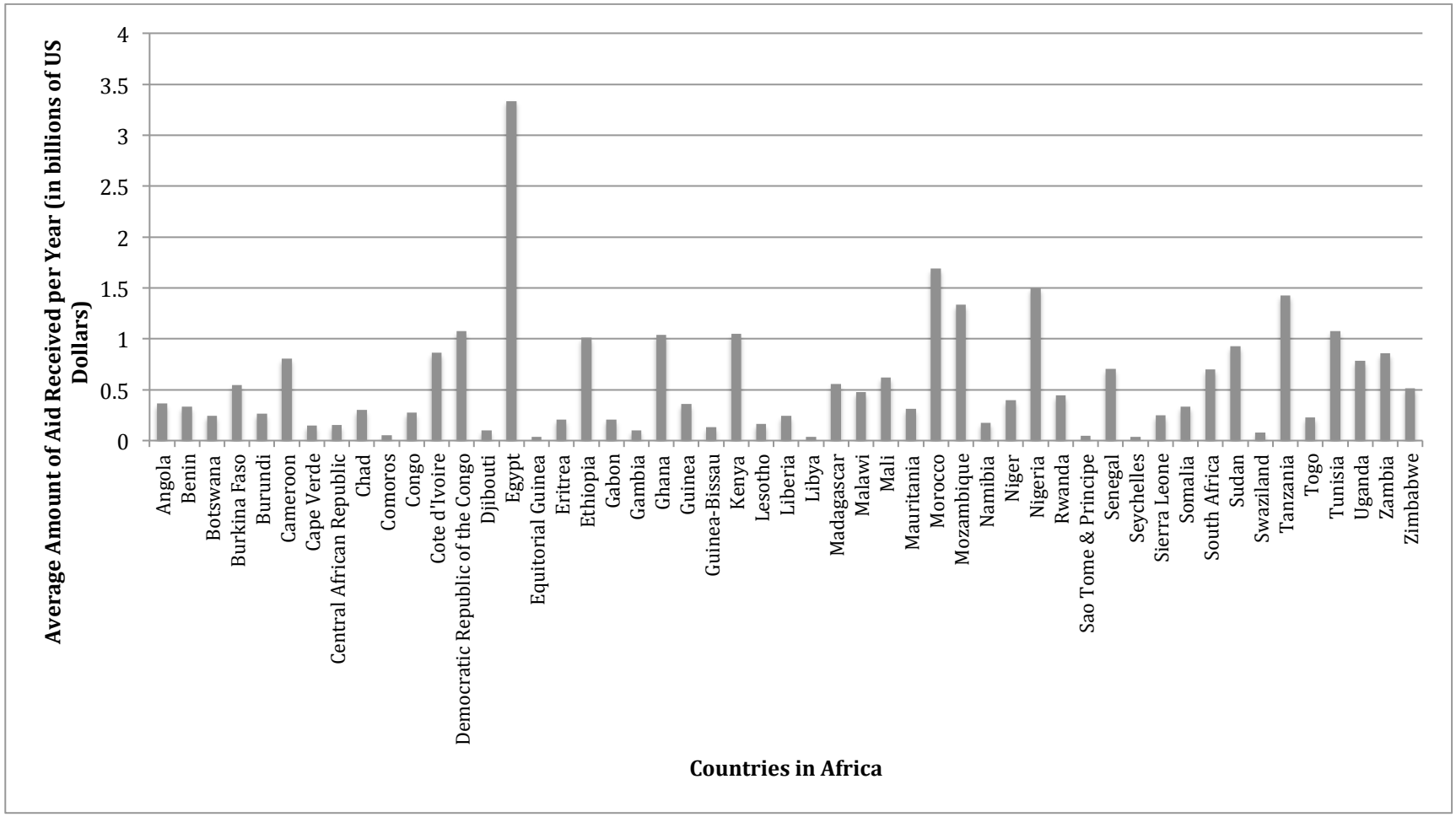
4.2 Data Analysis

4.2.1 Descriptive Statistics

Over the past 50 years, net Official Development Assistance (ODA) has been expanding overall, as "more and more countries have become donors, and none [have] stopped providing aid" (Riddell, 2007, p. 22). More of this aid goes to Africa than to anywhere else. There is a statistically significant difference in the mean amount of aid given to African countries (M=19.00; SD=0.06) versus non-African ones (M=17.85; SD=0.06) after performing an independent group t-test; $t(6{,}937) = -11.44$, $p<0.000$ (two-tailed).[29] In the dataset, African countries, on average, receive about half a billion US dollars a year each, though the difference in what each country receives in a given year varies greatly depending on the country. This value ranges up to $13.8 billion (which Nigeria received in 2006). Figure 4.1 shows the average amount of total aid each African country receives per year (based on aid flows up until 2012).

[29] The aid variable was transformed (logged) here in order to normalize the skewed distribution of the variable before conducting the t-test to satisfy the prerequisite assumptions of normality, especially as the t-test is particularly sensitive to these types of deviations.

Figure 4.1. Average Amount of Aid Received Per Year Per Country (in Billions of US Dollars).



An independent group t-test examining the size of excluded populations in Africa versus the rest of the world also shows that the size of the excluded population in African countries is, on average, statistically significantly larger (M=1.93; SD=0.04) than in non-African ones (M=1.73; SD=0.02); $t(7,136) = -5.07$, $p<0.000$ (two-tailed).[30] Though in some states the size of the ethnically excluded population remains unchanged over years, for others this number does periodically change – an indication of the changing temporal ethno-political power dynamics within a state. In African countries, on average, about a quarter of the population (25%) is excluded, meaning they lack any access to central power, though the size of the excluded population varies greatly by each country (it can vary from 0% of the population to 98%). Figure 4.2 shows the average size of the excluded population in each country in the dataset.

Lastly, an independent group t-test examining the number of conflicts that begin in African countries relative to the rest of the world shows that there is a statistically significantly larger number of civil conflicts that begin on average in African countries (M=0.02; SD=0.002) when compared to the rest of the world (M=0.01; SD=0.001); $t(11,745) = -4.40$, $p<0.000$ (two-tailed).[31] Almost all African countries have experienced at least one year with the onset of a civil conflict, with some experiencing as many as seven separate civil conflict onset years. Figure 4.3 shows the total number of civil conflict onset years each African country experienced.

[30] The excluded population variable here was also transformed (logged) prior to t-test analysis for the aforementioned reasons.
[31] This variable too was transformed (logged) prior to t-test analysis (see above).

Figure 4.2. Average Size of the Excluded Population Per Country (as a Proportion of the Total Population of a State).

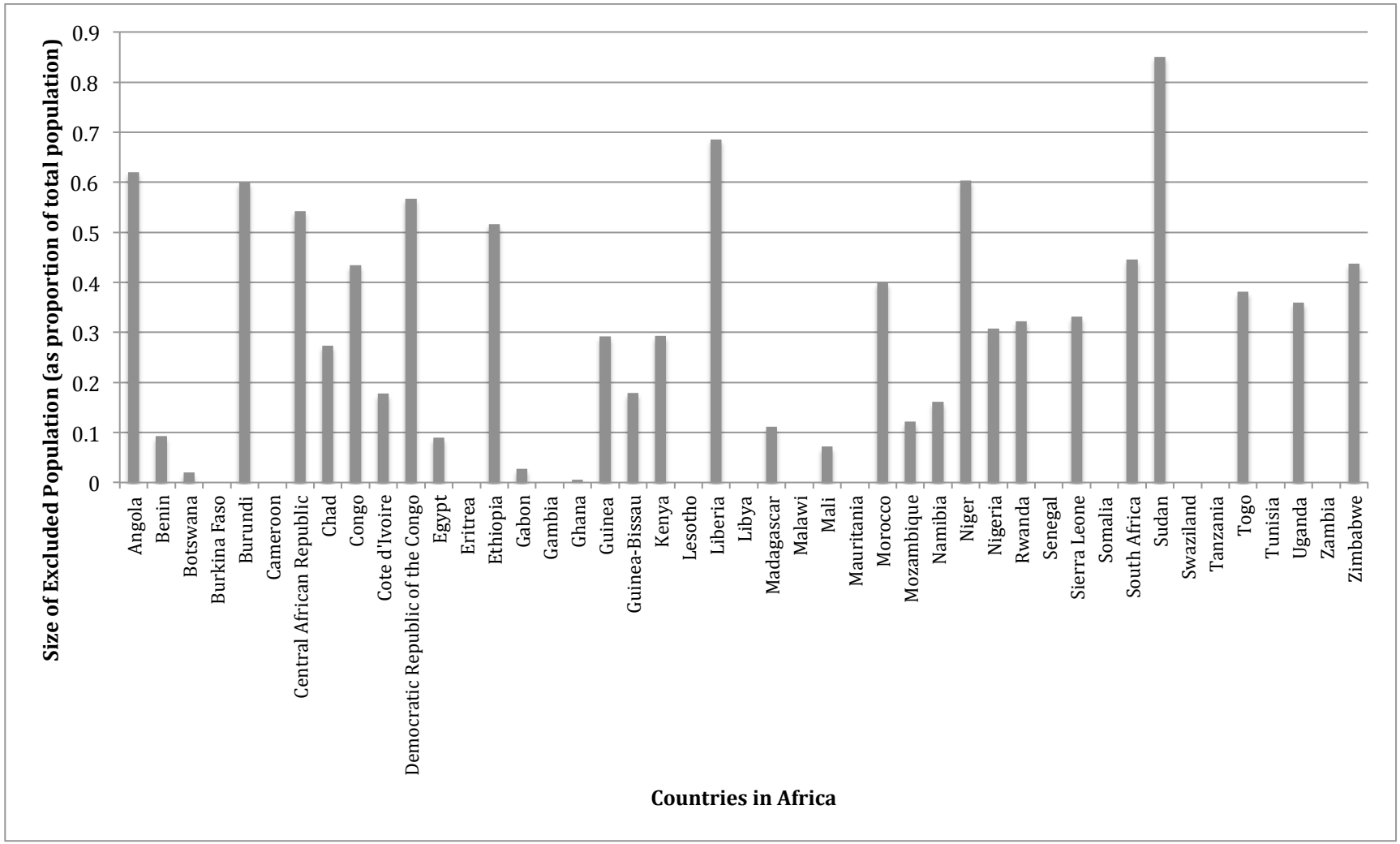
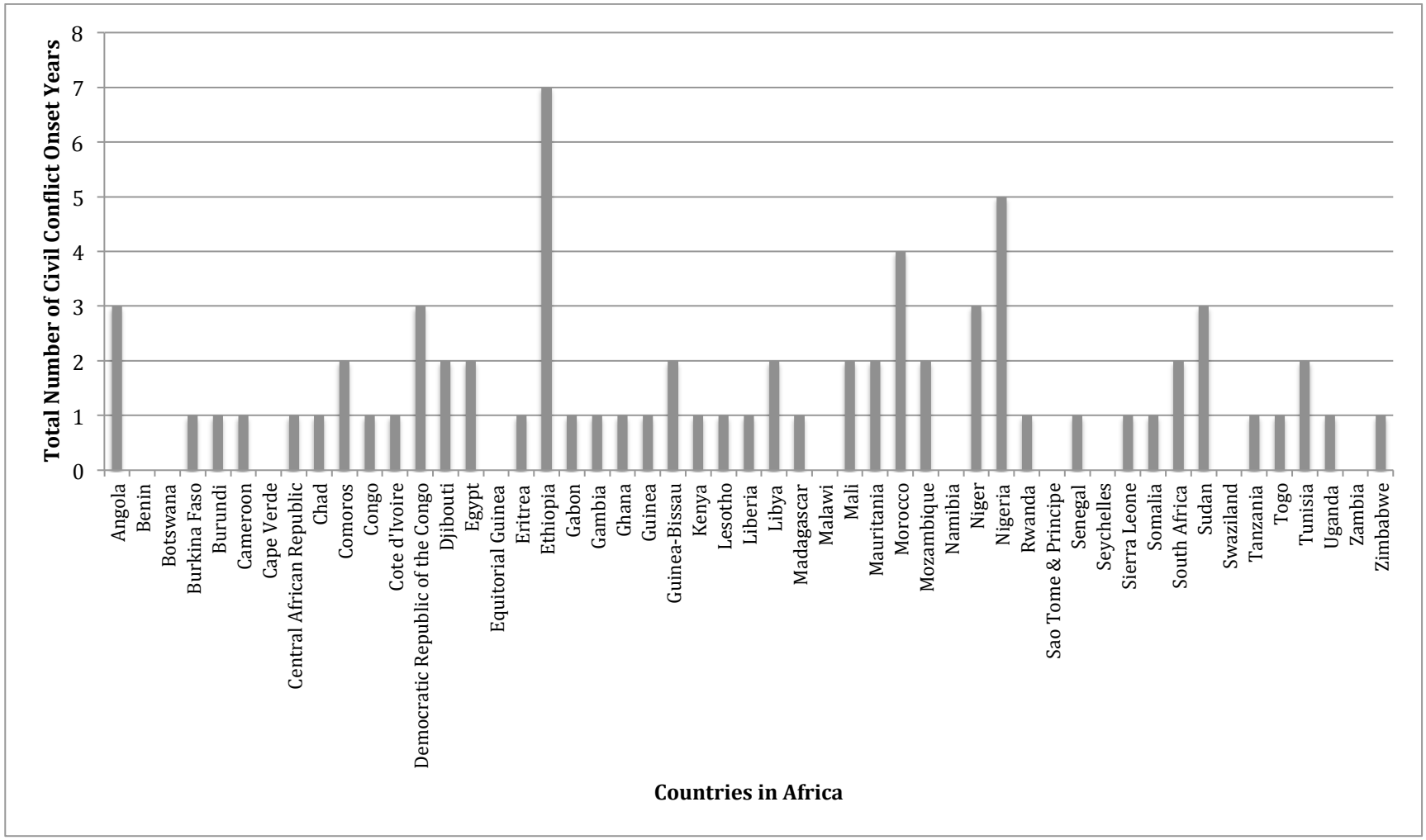


Figure 4.3. Total Number of Civil Conflict Onset Years Per Country.



Given this emphasis of more aid, greater ethnic exclusion, and a higher likelihood of civil conflict onset in Africa, there is even more reason to focus this project on African countries in particular.

4.2.2 Statistical Methods

Going beyond descriptive statistics, I employ logistic regression analysis here to test the effect of the explanatory variables of interest on a binary predictor variable measuring the likelihood of civil conflict onset; I offer models using random effects (RE) as well as state-level fixed effects (FE) to test aggregate-level hypotheses. Odd numbered models are random effects models, while even numbered models are state-level fixed effects models. Similar to other aggregate-level studies, the unit of analysis is country-year. The data range temporally from 1946 to 2012.

4.2.3 Analysis of Aid and Civil Conflict

The main results are presented in Table 4.1. I start with examining the relationship between aid flows to a state and the likelihood of civil conflict onset. Neither Model 1 (RE) nor Model 2 (FE) suggests that there is a statistically significant linear relationship between aid flows to a state and the likelihood of civil conflict onset. Hypothesis 1A, which hypothesized that an increase in aid flows to a state will lead to an increase in the likelihood of civil conflict onset, is not supported.

Neither Model 3 (RE) nor Model 4 (FE) suggests that there is a statistically significant quadratic relationship between aid flows to a state and the likelihood of

civil conflict onset. Hypothesis 2A is not supported, in which it had been hypothesized that the relationship between aid flows to a state and the likelihood of civil conflict onset will be a U-shaped curve in line with dependency arguments, wherein an increase in aid flows to a state may at first decrease the likelihood of civil conflict onset, yet may begin to increase the likelihood of civil conflict onset after a specific threshold.

Table 4.1. Effects of Total Aid Flows and Size of the Excluded Population on the Likelihood of the Onset of Civil Conflict.

	Hypothesis 1A		Hypothesis 2A		Hypothesis 3A	
	(1)	(2)	(3)	(4)	(5)	(6)
Aid (logged)	0.0822	0.326	2.279	2.718	0.134	0.352
	(0.131)	(0.218)	(2.780)	(3.403)	(0.155)	(0.246)
Aid (logged) - quadratic			-0.0588	-0.0627		
			(0.0725)	(0.0885)		
Size of Excluded Population					0.197*	0.0874
					(0.107)	(0.205)
Prior Conflict	-0.00421	-0.805	-0.0461	-0.846	-0.00937	-0.733
	(1.028)	(1.034)	(1.029)	(1.036)	(1.035)	(1.043)
GDP per Capita (logged)	-0.242	0.365	-0.206	0.459	-0.206	0.968
	(0.197)	(0.708)	(0.199)	(0.734)	(0.222)	(1.020)
Population (logged)	0.00659	-2.074**	0.0835	-1.927**	0.0501	-1.954**
	(0.158)	(0.806)	(0.180)	(0.820)	(0.187)	(0.918)
Polity Score	0.0228	0.100**	0.0243	0.0993**	0.0499	0.119***
	(0.0278)	(0.0409)	(0.0277)	(0.0405)	(0.0314)	(0.0437)
Constant	-3.906		-25.71		-6.184**	
	(2.633)		(27.49)		(3.081)	
Fixed Effects	no	yes	no	yes	no	yes
Number of Observations	1,695	1,094	1,695	1,094	1,427	883
Number of Groups	47	29	47	29	44	26

Standard errors in parentheses; ***p<0.01, **p<0.05, *p<0.1

4.2.4 Analysis of Ethnic Exclusion and Civil Conflict

As discussed, I am unable to test the effect of ethnic inequality between ethnic groups within a state on civil conflict specifically at the national-level. Through employing a measure of the size of the ethnically excluded population, however – as opposed to a measure of ethnolinguistic fractionalization, as is often done when examining the effect of ethnicity in populations – I am able to examine the relationship between ethnic *exclusion* and the likelihood of civil conflict onset using a proxy. Though this variable might not shed light on the role of inequalities between ethnic groups, it does help to capture a general sense of how grave inequality within a state might be more generally. Model 5 (RE) offers some support for a statistically significant positive relationship between ethnic exclusion and the likelihood of civil conflict onset, though Model 6 (FE) does not. Hypothesis 3A, which hypothesized that an increase in the size of the ethnically excluded population (as a proportion of the population of the state at large) would lead to a higher likelihood of civil conflict onset, is hence somewhat supported here (by Model 5).[32]

Since the size of the ethnically excluded population is not time-invariant in the dataset, employing a fixed effects model (e.g., Model 6) is helpful here; however, as the size of the excluded population does remain unchanged temporally for some states, a random effects model (e.g., Model 5) does help in shedding some light on this relationship, and as a result this model's findings should not be discounted.

[32] I examine the joint effect of aid and the size of the ethnically excluded population here. Future research could employ the use of a multiplicative interaction term here instead/additionally in order to examine how these effects interact together.

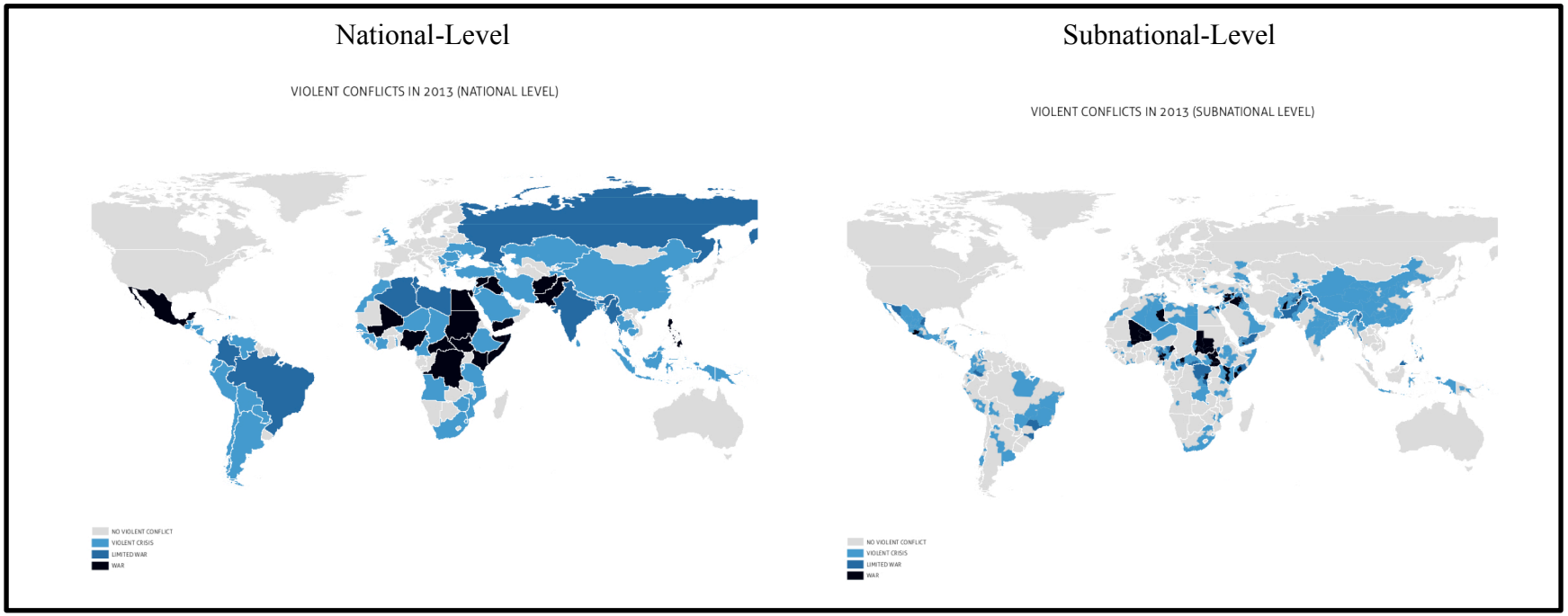
By accounting for how ethnicity interacts with inequality – instead of looking at the role of ethnicity alone – this finding helps in arguing that ethnicity might in fact play a role in affecting civil conflict onset, in opposition to many other aggregate-level findings in the literature (e.g., Fearon and Laitin, 2003). Examining the inequalities between specific ethnic groups subnationally in the following chapter fits in line with this contention.

4.3 Conclusions

The few statistically significant findings here are not surprising. This is in line with much of the literature that employs quantitative analysis at this national-level to test theories of subnational politics. When more closely examining what it means to aggregate micro-level processes to the macro-level, the gross effect it may have on findings and interpretations becomes more evident. Figure 4.4, for example, shows the stark difference between how prevalent violent conflicts might seem worldwide when examining violent conflicts at a national- versus subnational-level.

Using national, aggregate-level analysis is likely as prevalent as it is in the literature because of the availability of aggregate-level, comprehensive cross-national datasets with annual, country-level observations coupled with the dearth (until recently) of similar comprehensive, disaggregate-level datasets (see Backer, 2014). For example, de Ree and Nillesen (2009) did not find a statistically significant relationship between aid flows and civil conflict onset when using aggregate-level data, and Fearon and Laitin (2003) did not find a statistically significant relationship between inequality

Figure 4.4. Comparison of Violent Conflicts Worldwide at National-Level Versus Subnational-Level.



Maps from the Conflict Barometer Project (Heidelberg Institute for International Conflict Research, 2014)

and civil conflict onset when examining this relationship at the aggregate-level as well. Inflating subnational-level variables to the national-level – and as a result, often 'washing out' the apparent effects of these variables in quantitative analyses – lends further credence to the argument that aggregate, national-level analysis is not best suited for the analysis of theories regarding subnational mechanisms and processes.

Until recently, only qualitative research could afford insight regarding the dynamics of these subnational mechanisms and processes, though at the cost of decreased generalizability between states and regions (Backer, 2014). With the burgeoning availability of disaggregated data, in the following chapter I test my theories about the relationships between aid flows, ethnic inequality and exclusion, and civil conflict at the subnational level. Through capitalizing on these data, I am able to examine these micro-level processes while still taking advantage of the benefits of large-N quantitative methods that can offer better generalizability. As my theories are based on the interplay between ethnic groups and the allocation of aid on the ground in a country, and how these relationships might exacerbate relative deprivation in individuals in turn affecting civil conflict, it is my contention that quantitative analysis at this subnational level will offer more accurate and convincing results than the analyses presented in this national-level (aggregate) statistical analysis chapter.

5 Subnational-Level (Disaggregate) Statistical Analysis

In this chapter I investigate the relationships between aid flows, horizontal inequalities / ethnic exclusion, and how they influence relative deprivation which can in turn lead to more intense civil conflicts. I explore these relationships at the subnational-level here through making use of previously unavailable disaggregated data. By using data measuring the amount and geographic location of specific aid projects; the intensity and geographic location of ethnic civil conflicts; the power/discrimination status of the ethnic group(s) involved in the civil conflict; and calculating the physical distances between aid projects and conflict sites, I am able to more accurately measure the mechanisms driving my research questions – i.e., How might physical proximity to the unequal distribution of resources shape relative deprivation? How might relative deprivation in these regions contribute to conflict intensity? – and as a result, I am able to draw novel conclusions about the roles and interactions of these various variables. This study is the first to examine the role of distance between aid projects and ethnic conflict sites and to use it as a measure of relative deprivation impacting horizontal inequalities at the subnational-level.

5.1 Data

5.1.1 Dependent Variables

The dependent variable in this level of analysis is *conflict intensity* – a measure of the best estimate of fatalities resulting from a given ethnic civil conflict event. These data come from the UCDP Georeferenced Event Dataset (GED), v.1.5-2011 (Sundberg and Melander, 2013). This is an event-based and georeferenced dataset in which "each unit of analysis is a single event of organized violence in which it is believed that at least 1 person was killed" (Sundberg, Lindgren, and Padskocimaite, 2010), where an event is defined as an "incidence of the use of armed force by an organized actor against another organized actor, or against civilians" (Sundberg et al., 2010, p.4). "The dataset covers all countries in Africa, from 1989 to 2010" (Sundberg et al., 2010). The UCDP GED includes data on organized events of violence in Africa, which includes 24,382 separate violent events between the years 1989 and 2010.

My theory posits that in states with high ethnic exclusion, aid will be allocated along ethnic lines in an unequal way, leading to the formation and exacerbation of horizontal inequalities along these cleavages. With relative deprivation primed, individuals that are a part of the ethnically excluded population will be more inclined to rebel. As a result, I am interested specifically in conflicts that have an ethnic component.

In order to focus only on ethnic civil conflicts, I capitalize on the ACD2EPR docking dataset, v.1.2 (Wucherpfennig, Metternich, Cederman, and Gleditsch, 2012). This dataset codes the linkages between ethnic groups and rebel organizations, in effect measuring the involvement of ethnic groups in civil conflicts that occur by determining from which ethnic groups, if any, a particular rebel organization recruits fighters.[33] In order to ensure that recruitment along ethnic lines is not merely a result of local availability, the dataset identifies as 'ethnic' only those organizations that have an exclusive claim, i.e., whether or not it "pursues an objective that is directly linked to the group's fate" (Wucherpfennig et al., 2012, p.95).

The ACD2EPR dataset works by linking together the Non-State Actor (NSA) dataset (Cunningham, Gleditsch, and Salehyan, 2009) – which builds on the UCDP/PRIO Armed Conflict Dataset (ACD) (Gleditsch et al., 2002) – and the Ethnic Power Relations (EPR) dataset (Cederman et al., 2009). It offers data on ethnic conflict-years. This means that of the 24,382 separate violent events in the UCDP GED, only 6,094 of these events (about a quarter) involve an organized rebel organization based on the goals and claims of a politically-relevant ethnic group taking up arms against the government of the state within which it is based. As this dataset offers a UCDP conflict-identifying variable as a result of being built on the UCDP/PRIO ACD, I am able to use this variable to link this docking dataset to my conflict dataset (UCDP GED), allowing me to determine the conflict intensity and geographic location of

[33] This assumes that "a significant number of the group members actively participate in the organization's combat operations" (Wucherpfennig et al., 2012, p.95).

each of these ethnic armed conflicts.[34] As a result, through combining the UCDP GED and ACD2EPR dataset, I am ultimately left with the geographic coordinates of every event of organized violence in African countries between 1989 and 2010 in which one party is a state government and the other is an ethnic rebel organization. For each of these events, I have information about the ethnic group represented by the rebel organization involved in the civil conflict.

I next combine these data with the Ethnic Power Relations (EPR) dataset, v.3.0 (Cederman et al., 2009). This dataset identifies all politically relevant ethnic groups and their access to state power (i.e., the degree to which their representatives held executive-level state power, ranging from total control of the government to overt political discrimination) in every country of the world from 1946 to 2010. I am able to use these data to create a dichotomous variable determining whether or not an ethnic group is ethnically excluded (i.e., powerless and/or outright discriminated against) in a given year. By merging these data with the other data (from UCDP GED and ACD2EPR), I am ultimately left with the geographic coordinates of every event of organized violence in African countries between 1989 and 2010 in which one party is a state government and the other is an ethnic rebel organization, and for each of these events have information about the level of ethnic exclusion of the ethnic group(s) represented by the rebel organization(s) involved in the civil conflict.

[34] The inclusion of this variable is the main reason why I selected to use the UCDP GED for conflict geodata here, as opposed to other georeferenced conflict datasets, such as the Armed Conflict Location and Event Data (ACLED) Project (Raleigh, Linke, Hegre, and Karlsen, 2010).

It is important to keep in mind that the sample size changes significantly here from the data used in the previous chapter. In Chapter 4, I explored civil conflict onset in Africa. Given the use of aggregate-level data, the conflict onset variable accounts for whether or not civil conflict began in a given year; the variable does not account for how many separate civil conflicts might have begun in a year. Though I accounted for the size of the ethnically excluded population, I do not have data at the aggregate-level regarding what ethnic group(s) comprise this excluded population. As a result, whether or not the civil conflict(s) that began in a given year involved ethnically excluded groups is not accounted for in the dependent variable.

In this chapter, I explore ethnic civil conflict intensity. At the disaggregate-level, I have data on each separate instance of civil conflict that occurs each year. As a result, I am able to account for whether a rebel group promoting a politically relevant ethnic group was involved in each of these conflicts. I then examine a measure of conflict intensity here – this measures how many battle-related deaths occurred in instances when conflict occurred. Unsurprisingly, due to this difference between the analyses in these two chapters, the size of the datasets used also varies considerably.

5.1.2 Independent Variables

There are two main independent variables in this level of analysis. The first, again, is *foreign aid* – a measure of the amount of aid inflow per aid project in constant 2000 US Dollars,[35] including all development financing activity, and the geographic location of each aid project. These data come from the Aid Locations during Civil

[35] To account for inflation.

Wars South of the Sahara dataset, v.1.0 (Findley, Powell, Strandow, and Tanner, 2011a) and are lagged for analysis. This dataset georeferences aid commitments that are included in the AidData project (Tierney et al., 2011).[36] Specifically, aid projects that were "committed to African countries in which there are ongoing armed conflicts" since 1989 are coded (i.e., aid projects are only coded for active conflict years) (Findley, Powell, Strandow, and Tanner, 2011b, p.1996). Conflict years are determined by using data from the UCDP GED.[37] As my dependent variable of interest is conflict intensity (i.e., given that a civil conflict occurs, how intense is the conflict?) and not the likelihood of conflict (i.e., does conflict occur?), using aid data that are coded in this way should not be problematic for analysis as it does not artificially truncate my dataset in a way that would yield endogenous results.

When looking at the relationship between aid flows and conflict, endogeneity is an issue that arises – How can one be certain that the effects of aid are what lead to conflict, and not that aid happens to go to 'problem areas' in which conflict occurs? In aggregate analyses in which one is able to account for instances where conflict both did and did not begin/occur (e.g., a binary variable measuring yearly conflict onset/occurrence or the lack thereof, as seen in the previous chapter), temporally lagging a conflict variable can help in accounting for this possible endogeneity. However, in disaggregated analyses, especially when using point data to measure specific subnational instances when conflict began/occurred, it becomes more

[36] Here, again, similar to the aggregate-level of analysis, aid is measured as aid commitment, not aid disbursement, as a result of the feasibility of collecting data measures.
[37] This is another reason why I choose to use the UCDP GED for geodata for the project, as opposed to other georeferenced conflict datasets,

difficult to account for this possible endogeneity due to the difficulty of measuring both the effect of conflict and no-conflict (i.e., it is difficult to measure the characteristics of specific points in which conflict did *not* occur, especially as the points would need to be chosen arbitrarily). In measuring the *intensity* of conflicts that have occurred – instead of the onset/occurrence of conflict and the lack thereof – it is somewhat more feasible to account for causality as one can account for varying degrees of conflict intensity. In other words, drawing conclusions about how varying aid can affect the levels of intensity of conflict is less dangerous than trying to draw conclusions about how varying aid can affect whether conflict begins or occurs, since it is difficult if not impossible to account for how varying aid can affect whether conflict does not begin or does not occur.

In addition to exploring conflict intensity (and not conflict onset or occurrence) in the analysis here, I also try to account for possible endogeneity through the temporal lagging of my variables – measuring the effect of aid and ethnic exclusion/inequality on civil conflict intensity the following year. By doing so, I hope to minimize the confounding possibilities of endogeneity here.

In the following case study chapter, I offer maps of all conflicts (in the Democratic Republic of the Congo) in a given year along with where aid projects are targeted the following year in order to demonstrate that conflict does not influence aid, but that rather the relationship flows in the other direction: aid influences conflict. This is discussed in further detail in the following chapter.

As exploring conflict through using disaggregated conflict data becomes increasingly popular, it is important to develop commonly agreed upon methods that may reduce the risk of endogeneity. For example, a possible solution could be the random choosing of no-conflict points to be examined in conjunction with conflict points in a dataset (i.e., including arbitrary points in which conflict did not occur in a state in order to be able to draw conclusions about when factors might not lead to conflict). Buhaug and Rød (2006) do something similar in their study, in which they develop artificial geometric units, or grid cells, to use as the unit of analysis (instead of the conflict itself), allowing them to use a dichotomous variable of conflict onset – whether or not conflict begins in a grid cell in a given year.

Though data on the monetary size of aid projects are reliable, not all of the geographic data is as precise – a result of the logistical difficulty of pinning down exact geographic coordinates of aid projects in remote areas, especially historical projects that may no longer be in place presently. Though the dataset does its best to offer exact geographic coordinates of aid projects, in instances where exact locations are unknown, the location is aggregated to the administrative or state-level (i.e., the most exact level for which there is information). A variable that is coded in the dataset offers information on the level of precision in accuracy of the geographic location of the aid project, ranging from 1 (when the exact location or city is known and reflected in the geographic coordinates) to 8 (where the geographic location is not known so geographic coordinates are coded as the capital / central government). As a

result, though I feel comfortable using the full dataset of aid projects from which to draw conclusions on the effects of the sizes of aid projects, I feel less compelled to use the entire dataset of aid projects when drawing conclusions regarding the effects of the location of aid projects due to limited accuracy. In instances where I examine questions about the physical location of aid projects and the distance between these projects and other variables like conflict sites, I reduce the dataset to only those projects with a precision level of less than 5 – these are aid projects that are coded with geographic coordinates at a more precise level than first-order administrative divisions. Of the 65,521 geocoded aid projects coded as a part of the Aid Locations during Civil Wars South of the Sahara dataset, only 15,067 of the projects (23% of observations) are coded as of now at a precision level more accurate than first-order administrative divisions. As future iterations of data collection are able to collect more accurate georeferenced information regarding the geographic location of aid projects, future research may be able further explore these relationships.

Aid projects take a variety of shapes. They can span from being general budget support that may be more centrally located within a state, to having more specific intentions while located at the local-level – i.e., road building, water resources, medicine, education, etc. (Tierney et al., 2011). Here I am interested in exploring the effect of aid more generally in exacerbating subnational inequalities, and as a result do not distinguish between aid project types. However, arguably, different types of aid might have varying effects on these subnational relationships, especially as a result of varying degrees of fungibility – i.e., the building of roads or a school in an

area might be of benefit to multiple ethnic groups (including possibly excluded ethnic groups), while aid earmarked for general budget support might be more at risk of kleptocracy to the detriment of excluded ethnic groups. Currently, disaggregated aid project types are not geocoded, which is another reason I do not include this analysis here. I leave this to future research to explore, especially as new data become geocoded for analysis.

The second independent variable of interest in this level of analysis is the *geographic distance* between aid project locations and conflict sites. Here I calculated the geographic distance between each precisely coded aid project (as discussed above) and each ethnic civil conflict site. This is the distance between these two points 'as-the-crow-flies.'[38] Through calculating the distance between each and all of these points, I am better able to account for the relationship between aid and conflict as I measure the influence of every aid project on every ethnic civil conflict in order to determine the extent to which each of the aid projects might affect each ethnic civil conflict. Setting up my dataset in this way allows me to examine this relationship in a more complete way, without introducing any biases. If I measured the distance between each aid project to only specific conflict sites, there would be a selection bias (i.e., the effect of aid on the chosen conflicts might be different than the general effect of aid on conflict).

[38] This measure was obtained using the Pythagorean Theorem. It does not take into account terrain, etc.; this is a variable I leave for future research to explore. Additionally, if one is interested in examining distances across a larger area (i.e., distances that might span an entire continent), one may be advised to use the Great Circle Calculation instead, which takes into account the curve of the Earth's surface, when calculating distances between points. However, as I measure distances between points within a country here, I feel confident that the calculated distances do not vary greatly enough between the two methods to significantly skew my results.

5.1.3 Control Variables

Again, I include a number of control variables here as typically seen in the literature. I include GDP per capita due to its effects on aid flows (Boone, 1996) and armed conflict (Fearon and Laitin, 2003); these data are from the Penn World Tables (Heston et al., 2009) and are lagged for analysis. I include the size of the general population, as the literature suggests that it has an effect on aid flows (Boone, 1996) as well as armed conflict (Hegre and Sambanis, 2006). These data are from the Penn World Tables (Heston et al., 2009) and are lagged for analysis. I also include the size of the ethnic group involved in the conflict due to its effects on conflict (Wimmer, Cederman, and Min, 2009); these data are from the Ethnic Power Relations dataset (Cederman et al., 2009) and are lagged for analysis. Lastly, I include regime type due to its effects on aid, patronage networks, and armed conflict; these data are from the Polity IV Project (Marshall and Jaggers, 2002) and are lagged for analysis.

5.2 Data Analysis

5.2.1 Descriptive Statistics

With the rise in access to disaggregated data, I am now able to better examine the potential micro-effects of aid. Instead of settling for total aid flows to a state per year, these new data offer the ability to examine specific aid projects. Aid projects vary in size, ranging in size up to about $1.5 billion US dollars, though with an average size of about $2.37 million US dollars. States also receive varying numbers of these aid

projects each calendar year. On average, states receive as few as 25, or up at as many as about 1,050 aid projects per calendar year. Figure 5.1 shows the average number of aid projects a country received per year.[39]

The number of fatalities resulting from an ethnic civil conflict also varies. Most civil conflicts experienced fewer than 150 battle-related deaths, with only a handful of conflicts experiencing more than 2,000 deaths (up to a maximum of 9,000 fatalities).[40]

Geographic distance is measured as the distance between every aid project and every ethnic civil conflict using the two points' geographic coordinates (i.e., their latitude and longitude), yielding almost half a million unique observations. Approximately 99% of observations range from 0 to 20.5 degrees (this is equal to roughly 0 to 1,200 miles [0 to 1,931 km]), with most observations actually ranging from 0 to 5 degrees (roughly 0 to 295 miles [0 to 475 km]).[41]

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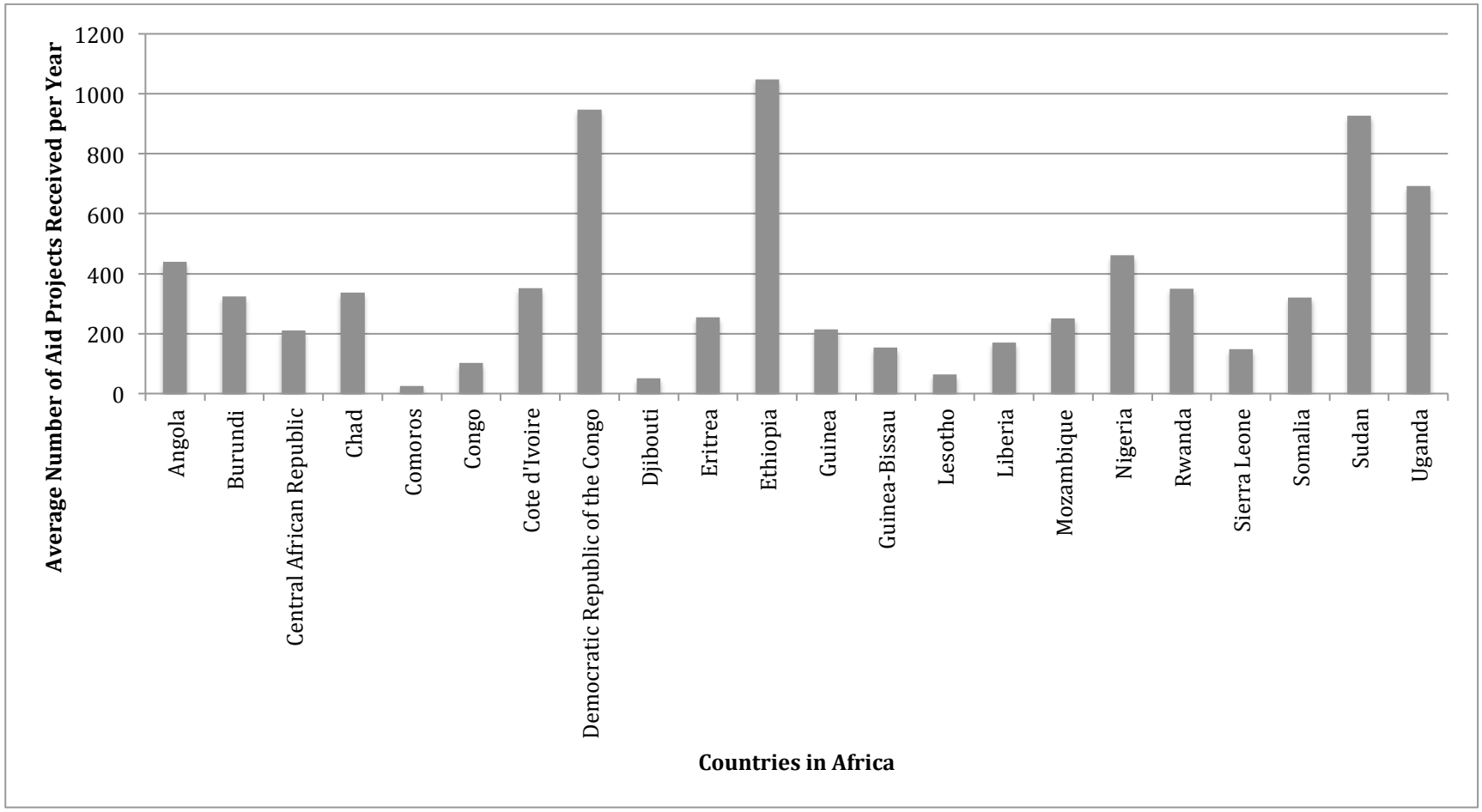
[39] This is based on aid projects received between 1989 and 2009 during active conflict years, in line with the description of the structure of the dataset above. As mentioned before, the Aid Locations during Civil Wars South of the Sahara dataset, v1.0 (Findley et al., 2011a) from which these data on aid projects are drawn, codes only aid projects that were "committed to African countries in which there are ongoing armed conflicts" since 1989 (Findley et al., 2011b, p.1996). As a result, data is coded for a fewer number of African countries within this dataset versus the UCDP GED, AidData, or EPR datasets, from which data were used to create Figures 4.1, 4.2, and 4.3 discussed in the prior chapter. See Table A.1 in the Appendix for a list of the countries and conflict years that are coded and included in the Aid Locations during Civil Wars South of the Sahara dataset.

[40] Examples of ethnic civil conflicts experiencing more than 2,000 battle-related deaths are battles part of the Republic of the Congo Civil War, the First Congo War, the Ethiopian Civil War, the Angolan Civil War, and the conflict in the Sudan.

[41] The conversion from degree to miles or kilometers changes as a function of where on the Earth the distance lies (see nationalatlas.gov). A degree of latitude is approximately equal to 69 miles (111 km), but a degree of longitude varies depending on its distance away from the equator. At the equator (i.e., a latitude of 0 degrees), a degree of longitude is equal to approximately 69 miles (111km), but at a latitude of 45 degrees, a degree of longitude is equal to approximately 49 miles (79 km). Hence, these conversions to miles/kilometers here are approximate and should only be used very generally.

Figure 5.1. Average Number of Aid Projects Received Per Year Per Country (During Active Conflict Years).



5.2.2 Statistical Methods

Going beyond descriptive statistics, I employ negative binomial regression models, and offer models using random effects (RE) as well as state-level fixed effects (FE) to test disaggregate-level hypotheses; odd numbered models are random effects models while even numbered models are state-level fixed effects models. The data here range temporally from 1989 to 2010. However, not all years are coded for all countries in the dataset. See Table A.1 in the Appendix for a list of included countries and conflict years for which aid data are coded.

5.2.3 Analysis of Aid and Civil Conflict

I start with examining the relationship between aid flows to a state and the intensity of ethnic civil conflict. The main results are presented in Table 5.1. Though Model 7 (RE) suggests support for Hypothesis 1B, that an increase in aid flows will lead to higher intensity conflict, Model 8 (FE) offers no statistically significant support for or against the hypothesis, suggesting that there is not a linear relationship between aid flows and conflict intensity.

In the next two models (Models 9 and 10), I include a quadratic aid variable in order to test for a threshold effect of aid – whether aid flows begin to have a different effect on conflict intensity after a specific threshold. Model 9 (RE) does not provide support for a threshold effect as it continues to provide statistically significant support for a linear relationship between aid flows and the intensity of ethnic civil conflicts as

seen in Model 7; though this does not support Hypothesis 2B, it can provide further support for Hypothesis 1B.

Table 5.1. Effects of Aid Flows on the Intensity of Ethnic Civil Conflicts.

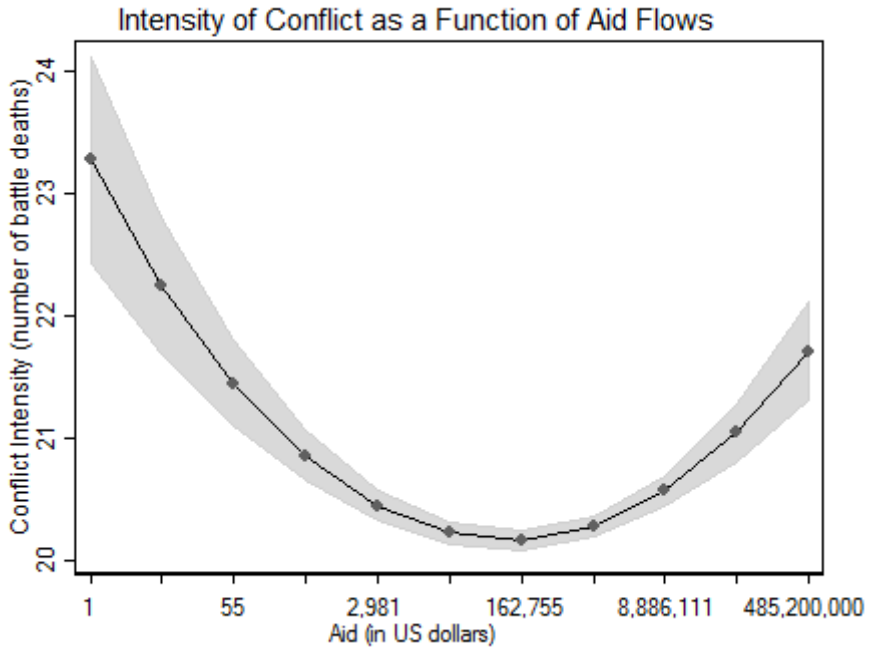
	Hypothesis 1B		Hypothesis 2B	
	(7)	(8)	(9)	(10)
Aid (logged)	0.0553***	0.0000526	0.0383***	-0.0246***
	(0.000551)	(0.000492)	(0.00353)	(0.00316)
Aid (logged) - quadratic			0.000727***	0.00106***
			(0.000149)	(0.000133)
GDP per Capita (logged)	-0.370***	-1.376***	-0.371***	-1.376***
	(0.00260)	(0.0151)	(0.00261)	(0.0151)
Population (logged)	0.0363***	-2.623***	0.0367***	-2.612***
	(0.00251)	(0.0192)	(0.00251)	(0.0192)
Group Size	-0.346***	3.407***	-0.346***	3.408***
	(0.00736)	(0.0203)	(0.00736)	(0.0203)
Polity Score	-0.0910***	-0.0285***	-0.0911***	-0.0289***
	(0.000480)	(0.000816)	(0.000480)	(0.000817)
Constant	3.558***	54.07***	3.653***	54.04***
	(0.0494)	(0.268)	(0.0531)	(0.268)
Fixed Effects	no	yes	no	yes
Number of Observations	1,585,998	1,585,998	1,585,998	1,585,998

Standard errors in parentheses; ***p<0.01, **p<0.05, *p<0.1

Model 10 (FE), however, offers support for Hypothesis 2B: though at low levels aid has a statistically significant effect in *decreasing* the intensity of ethnic civil conflict, at high levels aid has a statistically significant effect in *increasing* the intensity of ethnic civil conflict. Figure 5.2 displays this relationship, illustrating that at a threshold of about $109,098, the effect of aid on conflict intensity changes. This is a statistically significant effect. Though any change in the number of deaths of

individuals can be seen as a normatively important effect, the change in the number of fatalities seems to vary only by a few.

Figure 5.2. Threshold Effect of Aid Flows on the Intensity of Ethnic Civil Conflict.



This finding offers some support for aid dependency arguments – aid does not have a detrimental effect on conflict at all levels, yet can begin to exhibit harmful consequences at higher levels of aid. It does, however, also offer some support for those concerned about the harmful effect of aid overall – though the statistical findings suggest that aid begins to have a harmful effect after a threshold of $109,098, about two-thirds of the projects in the dataset are larger than this size, suggesting that aid is tending to have a harmful effect in many of the observations in the dataset here.

An important point to note: the variance in findings and statistical significance between the random versus state-level fixed effects models here suggests the

importance of correctly specifying models. As variation is high between states (i.e., different states see different levels of aid, different levels of conflict, etc.), and the level of aid received in a given year is not time-invariant, I argue that using fixed effect models here is more appropriate, and that the models will yield more accurate results.

In line with the literature, GDP per capita has a negative relationship with conflict; when individual income decreases, it is associated with higher intensity ethnic civil conflicts. Regime type is also found to have a statistically significant relationship to conflict intensity: more democratic states tend to exhibit lower intensity civil conflict, as expected. The fixed effect models (Models 8 and 10) suggest that the size of the population has a negative effect on conflict intensity; this is an interesting finding as an increase in the size of the population is often associated with a higher likelihood of civil conflict *onset* (see Hegre and Sambanis, 2006), yet this finding seems to suggest that its effect on conflict *intensity* may differ.[42] These models also suggest that the size of the ethnic group involved in conflict is associated with an increase in conflict intensity, in line with the argument that greater rebel support and capability is associated with greater conflict intensity.

5.2.4 Analysis of Ethnic Exclusion and Civil Conflict

Next I examine the relationship between excluded ethnic groups and civil conflict. I am interested in determining whether excluded groups are more likely to be involved

[42] This difference in (statistically significant) findings as a function of model specification is further support of its importance.

in ethnic civil conflicts. Hence, I want to test whether the proportion of times that excluded groups are involved in ethnic civil conflicts differs significantly from chance (i.e., if the odds of an ethnically excluded group becoming involved in a civil conflict – versus an ethnically included group – are significantly different than a 50-50 chance).

A one-sample binomial test indicates that there is a statistically significant difference (p<0.000, two-sided test), and that excluded groups are more likely to be involved in ethnic civil conflicts than included groups (i.e., the test suggests that excluded groups are involved in ethnic civil conflict 78% of the time, which is significantly greater than 50% of the time, had it been up to chance). This finding is in support of Hypothesis 3B – that excluded ethnic groups have a higher likelihood of becoming involved in civil conflict – and coincides with the literature on ethnic exclusion (i.e., Cederman et al., 2010; Cederman et al., 2011).

I am also interested in testing Hypothesis 3C and determining whether excluded ethnic groups experience higher intensity civil conflicts. Thus here I want to test whether the average number of fatalities experienced by ethnically excluded groups is significantly different from that experienced by ethnically included groups. An independent group t-test indicates that there is a statistically significant difference between the means, though not in the direction originally hypothesized – on average, the number of fatalities experienced by ethnically excluded groups is lower (M=1.69, SD=0.02) than that experienced by ethnically included ones (M=1.84, SD=0.05*)*;

$t(6,092)= 3.08$, $p=0.002$ (two-tailed).[43] As this finding suggests that civil conflicts involving an included group actually see *more* fatalities than civil conflicts involving an excluded group, Hypothesis 3C is not supported.

This finding is, however, in line with theories in the literature. As rebel capabilities increase, civil conflict duration decreases (see Buhaug, Gates, and Lujala, 2009; Cunningham, Gleditsch, and Salehyan, 2009). This is a result of rebels with high capabilities being able to exert high conflict intensity, pushing conflict to settlement more quickly. Hence, one could assume that rebels with high capabilities experience higher conflict intensity. Here, included ethnic groups, who benefit from higher access to resources, likely have higher capabilities. As a result, this finding – that included ethnic groups experience more battle-related deaths – is in line with this literature regarding rebel capabilities. Additionally, that included groups also see high(er) conflict intensity is a finding uncovered by other studies as well; Cederman et al. (2011) find that in highly unequal societies, both in-groups and out-groups see more conflict, especially relative to more equal societies. Future research would do well to explore this finding in further detail.

5.2.5 Analysis of Aid, Ethnic Exclusion, and Civil Conflict

Next I explore the joint effect of aid flows and ethnic exclusion on civil conflict in order to determine whether civil conflicts involving an excluded ethnic group are

[43] This variable was transformed (logged) prior to t-test analysis.

more intense after (certain levels of) aid flows.[44] The main results are listed in Table 5.2.[45] Model 11 (RE) and Model 12 (FE) do not offer much support for a linear relationship between aid flows and civil conflict intensity. There is some statistically significant support for a positive relationship between aid flows and conflict intensity for included ethnic groups only. This is not in support of Hypothesis 4A. Model 13 (RE) and Model 14 (FE), however, offer support for a quadratic relationship between aid flows and the intensity of ethnic civil conflicts, in support of Hypothesis 4B.

Model 14 (FE) offers some statistically significant support (p=0.057) that at lower levels of aid, increases in aid lead to more intense civil conflict for in-groups; yet, once aid reaches a threshold of about $673,336, this relationship changes and increases in aid then begin to reduce the intensity of civil conflict. This statistical effect is weak however. Only about a quarter of aid projects in the dataset are larger than this threshold amount.

The opposite is true for excluded groups. At low levels of aid, increases in aid lead to less intense civil conflict for out-groups, yet once aid reaches a threshold of about $150,693, this relationship changes and increases in aid then begin to increase the

[44] I choose to explore this relationship separately here, instead of as an aspect of the next models that take into account geographic distance as a variable, because I do not include all aid projects in the geographic distance models (on account of the lack of precision in determining their geographic coordinates, as discussed earlier in this chapter). As these models do not take into account geography, I feel comfortable including all aid projects for which I have data in these models, allowing me to take advantage of more complete, accurate results.

[45] As I explore the differing effect for included groups versus excluded groups here, these models essentially include two models each – one for included and one for excluded groups – as opposed to one larger model that includes both of these subgroups. The number of observations included in these models differs as the larger dataset contains different numbers of included versus excluded groups, mirroring reality wherein a large number of ethnic groups are often powerless or discriminated as there is often a smaller number of included groups who hold/share power.

Table 5.2. Effects of Aid Flows and Ethnic Exclusion on the Intensity of Ethnic Civil Conflicts.

	Hypothesis 4A				Hypothesis 4B			
	(11)		(12)		(13)		(14)	
	Included	Excluded	Included	Excluded	Included	Excluded	Included	Excluded
Aid (logged)	0.000946	-0.000402	0.00267*	-0.000402	0.0259**	-0.0314***	0.0204*	-0.0314***
	(0.00159)	(0.000527)	(0.00159)	(0.000527)	(0.0107)	(0.00335)	(0.0107)	(0.00335)
Aid (logged) - quadratic					-0.00107**	0.00133***	-0.000761*	0.00133***
					(0.000456)	(0.000142)	(0.000454)	(0.000142)
GDP per Capita (logged)	0.0547*	-1.506***	2.007***	-1.506***	0.0554*	-1.505***	2.009***	-1.505***
	(0.0296)	(0.0162)	(0.0616)	(0.0162)	(0.0296)	(0.0162)	(0.0616)	(0.0162)
Population (logged)	0.377***	-2.515***	-2.702***	-2.515***	0.376***	-2.501***	-2.703***	-2.501***
	(0.0186)	(0.0206)	(0.107)	(0.0206)	(0.0186)	(0.0206)	(0.107)	(0.0206)
Group Size	-0.772***	3.741***	-4.947***	3.741***	-0.777***	3.742***	-4.929***	3.742***
	(0.0437)	(0.0206)	(0.230)	(0.0206)	(0.0437)	(0.0206)	(0.230)	(0.0206)
Polity Score	-0.183***	-0.0259***	-0.0741***	-0.0259***	-0.182***	-0.0265***	-0.0738***	-0.0265***
	(0.00227)	(0.000981)	(0.00450)	(0.000981)	(0.00228)	(0.000982)	(0.00450)	(0.000982)
Constant	-2.730***	48.70***	36.98***	48.70***	-2.846***	48.65***	36.88***	48.65***
	(0.451)	(0.261)	(1.602)	(0.261)	(0.453)	(0.261)	(1.603)	(0.261)
Fixed Effects	no	no	yes	yes	no	no	yes	yes
Number of Observations	148,303	1,390,282	148,303	1,390,282	148,303	1,390,282	148,303	1,390,282

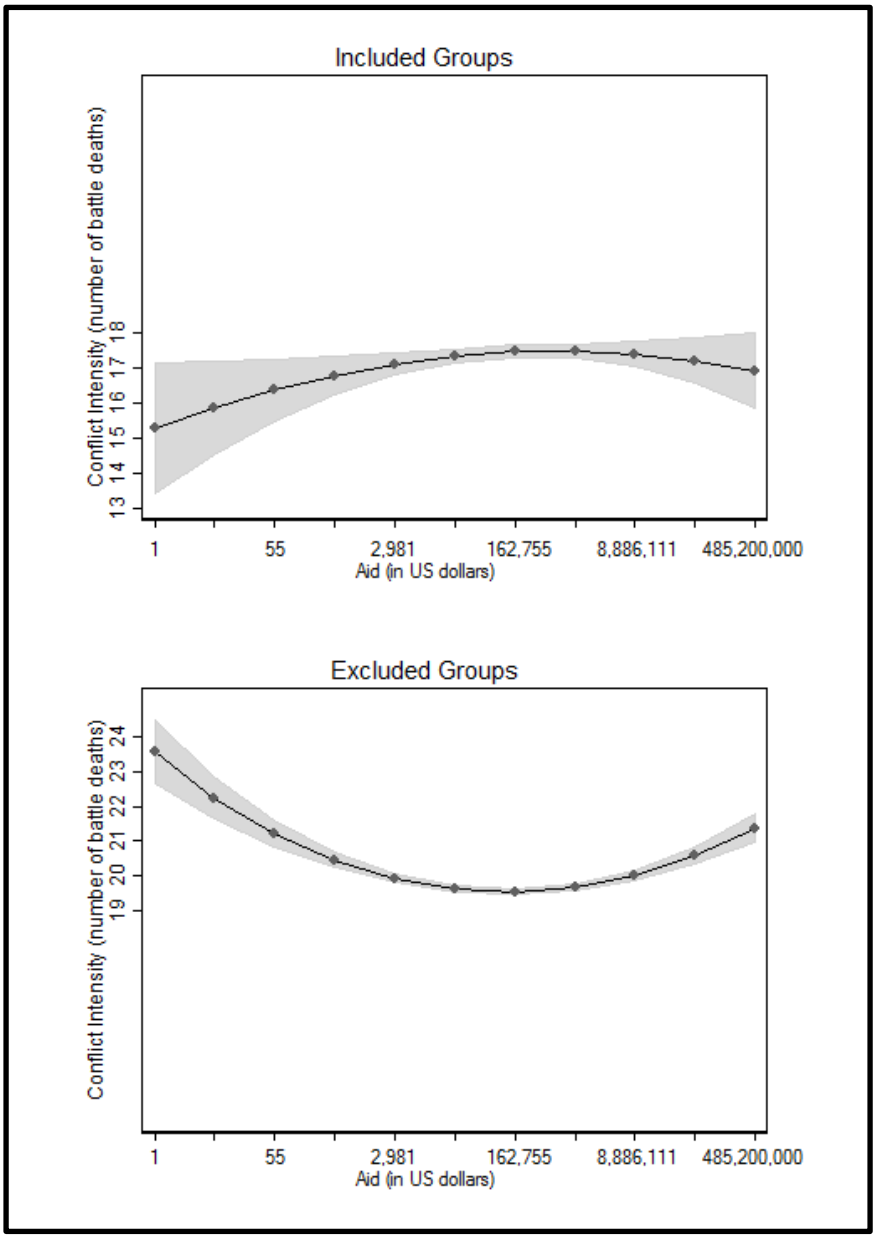
Standard errors in parentheses; ***p<0.01, **p<0.05, *p<0.1

intensity of civil conflict. Though this is a statistically significant relationship (p<0.000) that again offers some support for aid dependency arguments as aid begins to have a detrimental effect only after a threshold is reached, it is a substantively weak effect as over half of the aid projects in the dataset are larger than the threshold. Figure 5.3 displays this relationship, comparing the quadratic effect of aid on included versus excluded ethnic groups.

An interesting finding here is in the comparison between ethnic in-groups and out-groups: at all levels of aid, ethnic out-groups see higher intensity conflict than their in-group counterparts, often significantly higher. Though the difference may not seem to be very large when viewed on the scale of an outright war given a difference of only 10 fatalities, in terms of smaller conflicts that accumulate to become a war a difference of 10 battle-related deaths is significant, especially as only about one-quarter of observations in the data exhibit more than that many fatalities. This finding is in support of the horizontal inequality literature, which finds inequality and exclusion, especially along ethnic lines, to have a significant effect on civil conflict (see Stewart, 2008a; Cederman et al., 2011).

In line with the literature, and the prior models, regime type continues to have a statistically significant effect on conflict intensity: more democratic states tend to exhibit lower intensity civil conflict. This effect is true for both ethnically included and excluded groups. Population size also continues to have a negative effect on conflict intensity, as seen in prior models, on both ethnically included and excluded groups in the fixed effects models (Models 12 and 14).

Figure 5.3. Threshold Effect of Aid Flows on the Intensity of Ethnic Civil Conflict: Included Versus Excluded Ethnic Groups.



Interestingly, the effect on conflict intensity of GDP per capita and the size of the ethnic group involved in conflict varies for ethnically included versus excluded groups in these models. For in-group members, an increase in GDP per capita is

associated with higher intensity conflict, while for out-group members an increase in GDP per capita is associated with lower conflict intensity. Though it can be assumed that the increase in GDP per capita likely does much to quell some of the grievances of ethnically excluded populations, resulting in lower conflict intensity, the finding regarding the increase in conflict intensity exhibited by in-groups is more curious. Future research ought to explore this relationship in further detail.

The effect on conflict intensity of the size of the ethnic group involved in conflict varies for ethnically included versus excluded groups in these models as well. For in-groups, an increase in the size of the ethnic group involved in conflict is associated with lower intensity conflict. As their group size grows while they maintain access to a higher degree of resources, these in-groups become increasingly powerful, experiencing a lower need for conflict, and as a result will likely exhibit lower conflict intensity. An increase in the group size of ethnically excluded groups, however, is associated with higher conflict intensity for these groups. These groups are those who are hurt most by horizontally unequal societies. "Horizontal inequalities may enhance both grievances and group cohesion among the relatively deprived and [can] thus facilitate mobilization for conflict" (Østby, 2008a, p.143). Hence, as their size grows, these groups will be able to take advantage of their stronger capabilities and mobilization ability, and will likely rebel in order to alter their status quo. As grievances will be high, conflict intensity can be expected to be high as well. This is another avenue that I leave for future research to further explore.

5.2.6 Analysis of Relative Deprivation and Geographic Proximity

Finally, I explore the relationship between aid flows and ethnic exclusion while taking into account the role of geographic proximity (i.e., relative deprivation). It is my contention that in the closest geographic proximity, though inequalities might exist in the allocation of aid, excluded populations may be able to take advantage of some aid projects even if it was not intended for them (e.g., newly-built roads, schools, hospitals, etc.). However, at geographic distances a bit farther away, inequalities that occur in the allocation of aid – i.e., the unequal allocation of foreign aid to the benefit of ethnic in-groups and the detriment of ethnic out-groups – will be more palpable to those at a disadvantage. Here I assume that individuals on the ground in these areas are cognizant of aid allocation when in close proximity to where these projects are located, and that they are aware of where resources are propping up and who is benefitting (most) from them. At these distances, excluded groups may be too far away to be able to take advantage of the aid resources that might not have been originally intended for them, yet they may be physically close enough to the project(s) to be cognizant of the fact that they exist while their group is unable to take advantage of them. Again, here I assume that individuals are able to determine when aid projects are introduced in an environment. As a result, the relative deprivation that they are experiencing will be most tangible under these circumstances, and conflict intensity will as a result be highest during these times. As the geographic distance increases and ethnically excluded individuals are physically even farther away from where this patronage exchange is occurring, they might become less aware

of their relative deprivation.[46] Here I assume that information transfer becomes increasingly difficult across farther distances. As a result, a detrimental effect of aid on conflict intensity might become weaker at the farthest geographic distances from where aid projects are physically located. This theory is in line with the proposed Hypothesis 5B.

To test this theory, it is crucial to have very precise data regarding the geographic coordinates of aid projects. Thus, I use only data on aid projects here that are coded at the highest levels of precision (as mentioned earlier this chapter).[47] The main results of analyses are listed in Table 5.3.

Model 15 (RE) suggests that there is a linear relationship between aid flows and civil conflict, as well as geographic proximity and civil conflict, for both included and excluded ethnic groups. The findings here suggest that conflict intensity increases for in-group members as both aid and distance decrease; however, the opposite is true for out-groups: conflict intensity increases for out-group members as both aid and distance increase. These results should be approached with caution, however, as

[46] Arguably, with increased connectivity through heightened access to the World Wide Web, the unique role of physical proximity may begin to be diminished. As much of Africa still remains 'disconnected,' I feel confident that the results here are illuminating. However, future research in this vein would do well to begin giving consideration to the important role that technology might play in this relationship. I discuss this in more detail in the Policy Recommendations and Conclusions chapter in which I discuss future research avenues in greater detail.

[47] I run these models while including all aid data (including the less precise data) as well; these results are included in Table A.2 in the Appendix. The difference in findings adds credence to my argument that looking only at the most precise data here is crucial. When including the less precise data, distances are sometimes calculated between ethnic civil conflict sites and state capitals (or other higher order administrative regions), for lack of a better geographic coordinate to which to measure for aid projects; though coded as such, aid projects might not have ever been located in these places. This would greatly confound my findings that rely on measuring the distance between a conflict site and an aid project site.

Table 5.3. Effects of Geographic Proximity to Aid and Ethnic Exclusion on the Intensity of Ethnic Civil Conflicts.

	Hypothesis 5A				Hypothesis 5B			
	(15)		(16)		(17)		(18)	
	Included	Excluded	Included	Excluded	Included	Excluded	Included	Excluded
Aid (logged)	-0.0138***	0.0793***	-0.00868*	-0.00115	-0.0150***	0.0788***	-0.00911**	-0.000982
	(0.00456)	(0.00128)	(0.00452)	(0.00117)	(0.00456)	(0.00127)	(0.00453)	(0.00117)
Distance (logged)	-0.136***	0.567***	-0.0706***	0.00820	0.0905*	-0.0910***	0.00624	0.184***
	(0.0240)	(0.00451)	(0.0234)	(0.00543)	(0.0518)	(0.0180)	(0.0515)	(0.0188)
Distance (logged) - quadratic					-0.0892***	0.222***	-0.0297*	-0.0588***
					(0.0181)	(0.00582)	(0.0178)	(0.00607)
GDP per Capita (logged)	0.301***	-0.512***	3.979***	-1.920***	0.221**	-0.484***	3.929***	-1.887***
	(0.0945)	(0.00664)	(0.166)	(0.0323)	(0.0955)	(0.00680)	(0.169)	(0.0325)
Population (logged)	0.663***	0.204***	-5.415***	-2.473***	0.621***	0.186***	-5.406***	-2.495***
	(0.0576)	(0.00704)	(0.272)	(0.0441)	(0.0579)	(0.00718)	(0.272)	(0.0441)
Group Size	0.0946	1.695***	-8.452***	3.914***	-0.0130	1.636***	-8.519***	3.911***
	(0.148)	(0.0255)	(0.590)	(0.0461)	(0.150)	(0.0263)	(0.591)	(0.0461)
Polity Score	-0.273***	-0.0813***	-0.0223*	-0.0199***	-0.269***	-0.0799***	-0.0220*	-0.0185***
	(0.00600)	(0.00111)	(0.0125)	(0.00220)	(0.00605)	(0.00112)	(0.0125)	(0.00221)
Constant	-8.493***	0.0427	71.11***	50.23***	-7.423***	0.593***	71.25***	50.30***
	(1.437)	(0.135)	(4.170)	(0.581)	(1.447)	(0.138)	(4.171)	(0.581)
Fixed Effects	no	no	yes	yes	no	no	yes	yes
Number of Observations	20,489	302,044	20,489	302,044	20,489	302,044	20,489	302,044

Standard errors in parentheses; ***p<0.01, **p<0.05, *p<0.1

variation between states is not accounted for in this model, and aid flows and the distance between aid and conflict is not time-invariant. Model 16 (FE) does account for this variation. The findings here suggest again that conflict intensity increases for in-group members as both aid and distance decrease, though there is no statistically significant effect for out-group members. Neither of these models is in support of Hypothesis 5A, which hypothesized an increase in conflict intensity as geographic distance between aid and ethnic civil conflict decreased for excluded groups.

Model 17 (RE) and Model 18 (FE) explore the quadratic relationship between geographic proximity and civil conflict, while also accounting for the effect of aid flows. Model 17 (RE) yields statistically significant results. The findings here continue to suggest that conflict intensity increases when aid decreases for in-groups while the same is true for when aid increases for out-groups (as seen in Model 15). Interestingly, the effect of distance changes to reflect a quadratic relationship here. Model 15 (RE) had suggested that in-groups see an increase in conflict intensity with a decrease in distance, yet Model 17 (RE) clarifies this, suggesting that the effect of distance is actually positive and only changes to negative at farther distances of aid. There is a similar clarification here regarding out-groups: Model 15 (RE) suggested that out-groups see an increase in conflict intensity with an increase in distance, yet Model 17 (RE) clarifies this, suggesting that the effect of distance is actually negative and only changes to positive at farther distances of aid. These findings should be approached with caution however, as variation between states is not accounted for in these models and variables are not time-invariant. These findings do not support

Hypothesis 5B, which hypothesized low conflict intensity for smaller distances, an increase in conflict intensity as geographic distance between aid and ethnic civil conflict increased, followed by a decrease in conflict intensity for the largest distances between aid and ethnic civil conflict for excluded groups (i.e., an upside-down U-shaped curve).

Model 18 (FE) does account for this variation, and also yields some statistically significant, yet different, results. This model suggests that as geographic proximity to aid projects increases, ethnically excluded groups experience more intense civil conflict; this is true up to a threshold of 4.8 degrees (roughly 280 miles [451 km]). This relationship then changes after this distance; at farther distances from aid, ethnically excluded groups experience a decrease in the intensity of civil conflict. This is a statistically significant relationship ($p<0.000$) in support of Hypothesis 5B. Figure 5.4 displays this relationship, comparing the effect on included versus excluded ethnic groups.

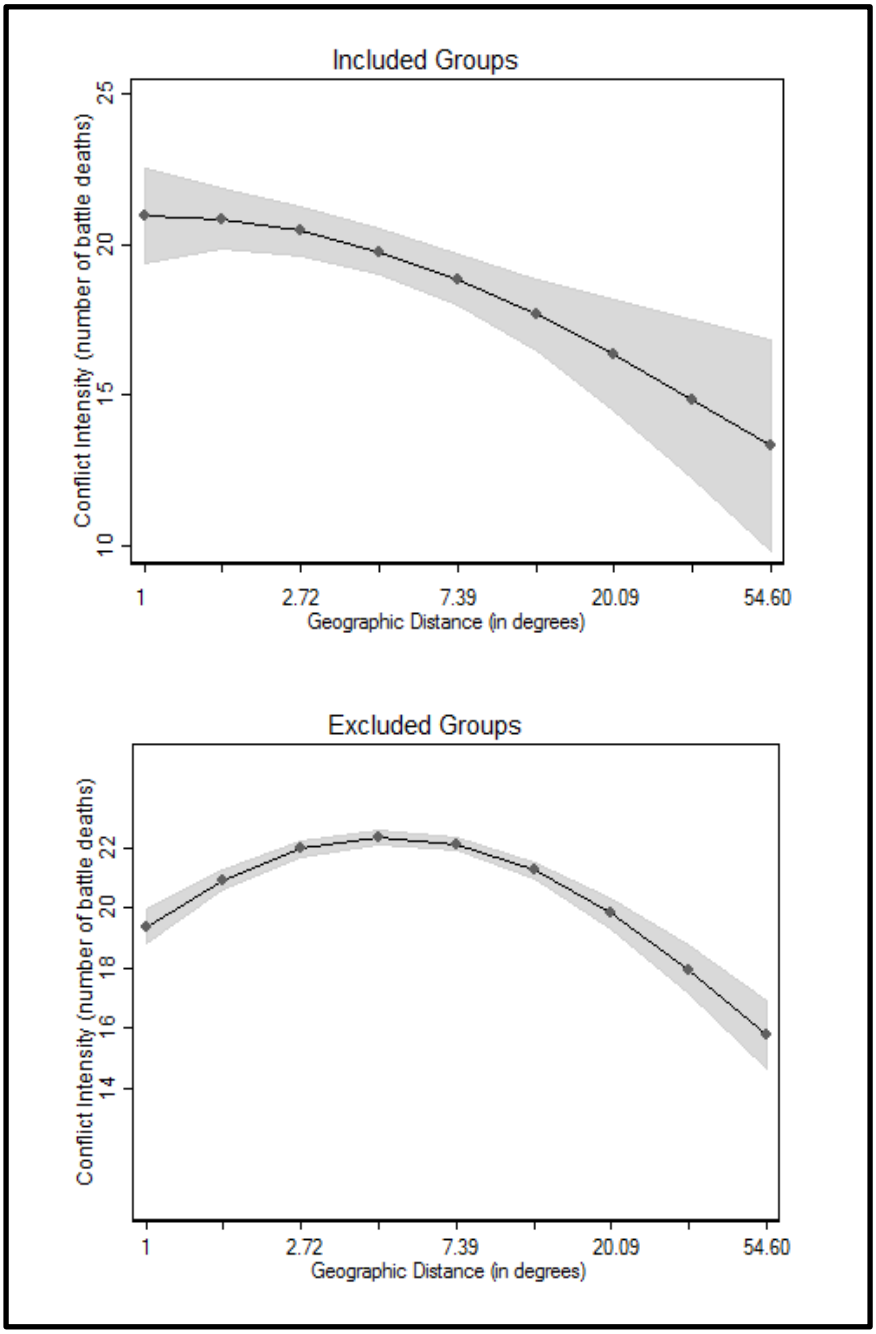
This finding is in line with the relative deprivation literature as well as with this project's main theory. In horizontally unequal states, resources are unequally allocated to in-groups to the detriment of out-groups (see Stewart, 2008a). In African states, this is likely along ethno-political patronage networks (see Stewart, 1999). Aid is a resource that leaders can use as patronage, which they can allocate along these networks (see Mwenda and Tangri, 2005; Licht, 2010). In the closest geographic proximity to aid project locations, excluded groups may be able to take

advantage of aid projects that might not have been intended for them. As the distance to this aid project increases however, the ability of excluded groups to take advantage of access to the resource may diminish. However, these groups may be cognizant of how this aid is being allocated. In states with high horizontal inequality where aid is being allocated unequally to in-groups over out-groups, this can raise grievances in ethnically excluded groups.

The finding here – that excluded ethnic groups begin to see higher intensity civil conflict as distance to these aid projects increases – offers support for this contention. Further in line with Hypothesis 5B, as this distance continues to increase, conflict intensity eventually decreases, likely as a result of the aid no longer playing a role in priming relative deprivation (i.e., at farther distances, excluded groups are arguably no longer aware of the exclusion/deprivation that is occurring). This relationship can be seen in Figure 5.4 in which the graph describing this effect for excluded groups displays an upside-down U-shaped curve where conflict intensity starts out low, increases, and then decreases as geographic distance to aid projects increase.

The fact that civil conflict intensity decreases after a threshold in geographic distance from aid projects also helps suggest that aid does not necessarily have fundamentally harmful qualities that contribute to civil conflict. This is further support for the notion that it is specifically the *allocation* of the aid that can yield harmful results fostering higher civil conflict intensity.

Figure 5.4. Threshold Effect of Geographic Distance on the Intensity of Ethnic Civil Conflict: Included Versus Excluded Ethnic Groups.



Ethnically included groups do not see much change regarding the intensity of civil conflict as a function of geographic proximity. At farther distances from aid, in-groups too experience a decrease in the intensity of civil conflict (p=0.095).

Assuming that aid does in fact have an effect on civil conflict (given the findings in earlier models), this finding is in line with the literature. Tobler's (1970) first law of geography states, "Everything is related to everything else, but near things are more related than distant things" (1970, p.236), implying that if aid does in fact have an effect on conflict, then this effect ought to be apparent in closer proximity to where the aid is located (i.e., "near things").

Interestingly, once taking into account geographic proximity (i.e., primed relative deprivation), the level of aid flows no longer seems to play as important a role in influencing civil conflict intensity for excluded groups specifically. As one might expect, increases in aid decrease the intensity of civil conflict for ethnically included groups (p=0.044); this is likely because increases in aid correlate with increases in access to resources through patronage networks for these in-groups. As a result, this likely quells any grievances, helping decrease the intensity of civil conflict. The level of aid, however, does not have a statistically significant effect on ethnically excluded groups.

In line with the literature, and the prior models, more democratic states continue to exhibit lower intensity civil conflicts; this is true for both in-groups and out-groups. Population size also continues to have a negative effect on conflict intensity, as seen in prior models, on both ethnically included and excluded groups in the fixed effects models (Models 16 and 18). In these models, as seen in Models 12 and 14, GDP per capita continues to have a positive effect on conflict intensity for in-groups while

having a negative effect on conflict intensity for out-groups, while the size of the ethnic group in conflict continues to have a negative effect when the ethnic group in conflict is ethnically included while having a positive effect when the ethnic group in conflict in ethnically excluded.

5.3 Conclusions

The findings in this chapter do much to illuminate the important contributions that subnational-level analysis can offer. Until recently, due to a lack of access to data, large-N quantitative studies could not contribute much to answering questions about subnational mechanisms, and had to rely only on qualitative research to shine any light on subnational-level processes. However, with new access to disaggregated data, scholars are now able to begin taking advantage of large-N quantitative methodologies to help answer research questions regarding micro-level processes.

The results in this chapter suggest that generalizations about the beneficial or harmful effects of aid flows are not as helpful as when the effects of aid flows on violence are explored at the micro-level more closely. Statistical findings suggest that the effect of aid on civil conflict intensity has a threshold effect, and that the deleterious effects of aid come to light after aid projects surpass a certain level. Additionally, the effect of aid on conflict seems to differ for subsets of the population: its negative effects seem to more significantly impact those that are excluded from access to power. Lastly, and perhaps most importantly, the effect of geographic proximity to the location of aid – and the relative deprivation that it primes – seems to play the strongest role in

influencing civil conflict intensity, specifically for excluded populations. This is perhaps the most important finding of this project: that it is not so much the level of aid that a state receives that might exhibit harmful consequences, but rather it is *how* aid is allocated within a state that seems to play a more crucial role in if/how aid influences conflict.

This finding lends credence to the important role that grievances play in contributing to violence and conflict. Arguments suggesting that grievance-based mechanisms contribute to civil conflict have been largely dismissed in the literature due to the dearth of supporting statistical findings. Most aggregate-level conflict research have used statistical findings to point to greed-based mechanisms driving violence and conflict instead. However, new research (including this project) has begun to shed light on the notion that grievances, especially those rising from horizontal inequalities, may in fact be one of the principal drivers of violence.

In the next chapter I will further explore these micro-level processes through a country-case study of the Democratic Republic of the Congo. Using geographic information systems (GIS) analysis, I will use maps to further illuminate the spatial component of the aid-conflict question.

Until now, the literature's main focus when exploring the aid-conflict nexus has been on how varying levels or types of aid might impact civil conflict in a state. As a result, consequent recommendations that these studies propose include suggestions

such as minimizing the amount of aid given to states or in continuing only certain types of aid. This project suggests that *how* aid is allocated in a state is crucial, and if it can be made to alleviate, if not improve, some of the horizontal inequalities and cleavages within a state, it is likely that the harmful effects of aid on conflict will be diminished. I explore what these results translate to in terms of global development strategies, and point to suggestions that might stem from these findings, in the Policy Recommendations and Conclusions chapter.

6 Case Study Analysis of the Democratic Republic of the Congo

In order to further understand the effect of aid and inequality / ethnic exclusion on civil conflict at the micro-level, I use geographic information systems (GIS) to explore a case study of the Democratic Republic of the Congo (DRC) in this chapter.[48] Through creating maps of aid 'hot spots' and 'cold zones' based on where aid projects are located – and overlaying data on ethnic group settlement patterns, the power status of these ethnic groups, where ethnic conflicts occur, what ethnic groups are involved in the conflict, and the intensity of these conflicts – I am able to visually represent the spatial relationships amongst these variables. The maps presented in this chapter, and the conclusions that can be drawn from them, offer further support for the subnational (disaggregate) statistical findings discussed in the previous chapter.

6.1 History of the Democratic Republic of the Congo

6.1.1 Post-Independence

Like many African countries, the DRC has experienced a tumultuous history. The DRC gained its independence from Belgium in 1960 following riots and much unrest. Subsequent parliamentary elections named Patrice Lumumba prime minister and

[48] The DRC has been known (in chronological order) as: Congo Free State, Belgian Congo, Republic of the Congo, and Zaïre, before being known as the Democratic Republic of the Congo today. It has been known by its most recent name since 1997 when then President Laurent Kabila restored the name following the fall of Mobutu Sese Seko.

Joseph Kasa-Vubu president of the country. Almost immediately, however, corruption and violence began to take place with looting of the capital and the state secessions of Katanga and Kasai, the country's richest provinces. Nationalist Prime Minister Lumumba turned to the USSR for support. Vying for proxy states in sub-Saharan Africa, the US, not wanting to be outdone, threw its support behind pro-Western President Kasa-Vubu. The result was an overthrowing of the government by the American-backed Colonel Joseph Mobutu. Lumumba was arrested and subsequently gruesomely murdered – foreshadowing what the tenure of Mobutu would later become famous for (Wallerstein, 2013). Marking the end of the Congo Crisis after five years of turmoil and unrest, then Lieutenant General Mobutu, commander in chief of the national army, seized control of the country and declared himself president, a position he would hold for over 30 years.

6.1.2 Patronage along Ethnic Lines under Mobutu

In an attempt to raise pro-African cultural awareness and create a singular national identity, Mobutu began his tenure in office with touting an official state ideology of *authenticité*, in which he called for the abandonment of lingering vestiges of colonialism and Western influence. He renamed the country itself (Zaïre) and its cities, and advocated for individuals to dress more 'authentically' (banning Western-style attire) and to take on 'authentic' African names in exchange for their Christian names, changing his own name from Joseph-Desiré Mobutu to Mobutu Sese Seko Kuku Ngbendu wa Za Banga (which loosely translates to *'the all powerful warrior*

who because of endurance and will to win, will go from conquest to conquest, leaving fire in his wake' – more foreshadowing of what would be the legacy of his reign).

Mobutu worked swiftly to consolidate power; early on, he was known to brutally torture his enemies and to publicly execute anyone that he believed might threaten his rule (The Washington Post, 1998). Later, he altered his tactics to bribing political opponents instead – e.g., offering positions in the cabinet to individuals, then appointing them to new positions within the cabinet in order to reward them while ensuring they would not pose a threat to his rule – a sort of 'musical chairs' (Bethke, 2013). He forced investors out of the country, and nationalized foreign-owned firms, awarding management of these firms to relatives and ethnic (Ngbandi) kin in a rampant patronage system (Pashi, 2013; Minorities at Risk Project, 2003). This came at the cost of the economic progress of the state, to the extent that Mobutu eventually had to entice the investors he had ousted to return (Pashi, 2013).

Mobutu's regime laid the foundation for a patronage system that would continue to persevere (and still does); all the while, Mobutu was the one to benefit most from this system (Reno, 1997). Through exploitation and corruption, Mobutu's tenure is today viewed as the embodiment of a 'kleptocratic regime' (Acemoglu, Verdier, and Robinson, 2004). He embezzled anywhere between $4 to 15 billion,[49] all while enjoying such extravagances as: Concorde-flown shopping trips to Paris, departing from the airport he had built in his hometown with a runway long enough to

[49] Most of these funds have yet to be uncovered – only $3.4 million have been uncovered in Swiss bank accounts (CNN, 1997).

accommodate the plane; and a fleet of Mercedes-Benz's that would aid in his travel in between his palaces (Andelman, 2013; Whelan, 1996). All of this occurred while his country suffered greatly as a result: much of the population was starving while living in poverty and inflation was high (due to the siphoning off of Mobutu's embezzled funds) making the economy even worse (Kalb, 1982).

As Mobutu maintained an anti-communist stance, he enjoyed significant support from Western countries (like the US) and international organizations (like the IMF) which helped prop up his regime (Reno, 1997). For years, Zaïre received a significant amount of US funds, to the tune of hundreds of millions of dollars – and this occurred despite the fact that for decades under his regime there were reports of abuses and human-rights violations, not to mention harmful economic 'policies' in place (Krauss, 1990). Mobutu's regime is hence exemplary of how aid can be channeled towards patronage, especially along ethnic lines, and how it can have negative, and even harmful, effects if not utilized in an effort to reach the development goals it was meant to serve.

Aside from administering patronage along ethnic lines to his fellow Ngbandi kinsmen, ethnic discrimination was also in place (Minorities at Risk Project, 2003, 2009). Following the Rwandan genocide of 1994, an influx of Hutu refugees entered Zaïre. In 1996, exemplary of enforcing ethnic exclusion, Mobutu's government ordered ethnic Tutsi-Banyamulenge to leave Zaïre or risk penalty of death; this came after years of the Tutsi enduring ethnic discrimination (Minorities at Risk Project,

2009). With the support of Rwanda, Burundi, and Uganda, Laurent-Désiré Kabila and his Alliance of Democratic Forces for the Liberation of Congo-Zaïre (AFDL) – made up in large part by ethnic Tutsi – initiated a rebellion – what came to be known as the First Congo War – and ultimately overthrew (a cancer-stricken and dying) Mobutu, who died in exile three months later. "Support from Rwanda [especially, as well as other countries] helped [L. Kabila's] Alliance of Democratic Forces for the Liberation of Congo transform from a marginal movement in Eastern Zaïre to a military force able to overthrow the Mobutu government" (Cederman et al., 2013, p.121), helping illuminate the important role that transborder ethnic kin can play. "As the relative strength of transnational ethnic kin groups increases, the risk of internal conflict also grows"[50] (Cederman et al., 2013, p.141). After overthrowing Mobutu, L. Kabila subsequently pronounced himself president of the country – whose name he changed from Zaïre back to the Democratic Republic of the Congo, which it remains named today.

6.1.3 The Democratic Republic of the Congo under L. Kabila

In some ways, L. Kabila mimicked his predecessor, not only in showing signs of authoritarianism, corruption, and inflicting human rights abuses, but also in his use of patronage and ethnic favoritism towards members of his own (Luba Shaba) ethnic group (Kisangani, 2009; Minorities at Risk Project, 2004). As a result, soon after L. Kabila took office, the Tutsi-Banyamulenge who had originally helped bring him to power launched a rebellion against him, with support from his former allies Uganda and Rwanda. As allies, the rebel groups the Rally for Congolese Democracy (RCD)

[50] Though only up to a certain point (Cederman et al., 2013).

(made up in large part by ethnic Tutsi-Banyamulenge [former AFDL members], though in coming years drawing from the Mbandja and Mongo as well) and the Movement for the Liberation of Congo (MLC) (made up in large part by ethnic Mbandja, though in coming years drawing from the Mongo and Tutsi-Banyamulenge as well), led by Jean-Pierre Bemba, backed by the governments of Rwanda and Uganda, initiated a conflict, in what came to be known as the start of the Second Congo War.[51] L. Kabila, allied with Angola, Namibia, and Zimbabwe, was able to avoid being overthrown as a result of the Second Congo War.

Meanwhile, these conflicts did much to increase access to firearms in regions that had previously used only less 'effective' weapons. This fact did much to perpetuate ethnic tensions between the Hema and the Lendu that had long existed in the Ituri region (in northeast DRC) to culminate into armed conflict – a conflict that continued as groups vied for access to resources in the region – which came to be known as the Ituri Conflict (a part of the Second Congo War) (Vlassenroot and Raeymaekers, 2004). This conflict saw much destruction and gross human rights abuses (e.g., use of mass graves, use of child soldiers, etc.) from all sides (Human Rights Watch, 2012). Sides included: the Union of Congolese Patriots (UPC) and its military wing the Patriotic Forces for the Liberation of Congo (FPLC), comprised in large part by ethnic Hema; the Lendu Nationalist and Integrationist Front (FNI); and their allies, the Front for Patriotic Resistance of Ituri (FRPI), led by Germain Katanga, comprised

[51] The RCD later fragmented into rival groups: the RCD-Kisangani-Movement for Liberation (RCD-K-ML) under Wamba dia Wamba (backed by Uganda) and what was left of the RCD became known as the RCD-Goma under Emile Ilunga (backed by Rwanda). The RCD later fragmented again into even more factions.

in large part by ethnic Ngiti, supported by a Ugandan-backed faction of the RCD; amongst others.[52] Thomas Lubanga, founder and head of the UPC, was the first person ever convicted by the International Criminal Court (ICC) for war crimes in 2006, namely for the use of child soldiers (The Guardian, 2012). After Lubanga's arrest, Bosco Ntaganda allegedly took control of the FPLC (Trial, 2014). Both Katanga and Ntaganda later faced charges of war crimes by the ICC as well for their involvement.

Though able to avoid being formally overthrown, a few years later in 2001, L. Kabila was assassinated by one of his own bodyguards. In patronage-based fashion, his son Joseph Kabila then became president. He remains president to this day.

6.1.4 Ethnic Exclusion and Civil Conflict under J. Kabila

After taking office, J. Kabila was somewhat successful in initiating peace talks to end the fighting associated with the Second Congo War (BBC, 2014a). Foreign troops began to withdraw from the DRC, and rebel leaders were given positions as vice-presidents within the interim government that would rule until pending elections. The Ugandan-backed MLC and the Rwandan-backed RCD still managed to maintain control over large areas of the country however, prolonging the conflict, in large part as a result of warring parties vying for control of resources in the region. This was to the detriment of the general population – the International Rescue Committee

[52] As neither the Hema, the Lendu, nor the Ngiti have either "at least one political organization [claiming] to represent it in national politics" or have "its members [subjected] to state-led political discrimination," they are not included as "politically relevant ethnic groups" in the Ethnic Power Relations dataset – the dataset from which I draw the data for this analysis (Cederman et al., 2010, p.99). This will be described in more detail later when the data is presented and described.

estimates that about 2.5 million people were killed as a direct or indirect result of the war (International Rescue Committee, 2000; Murison, 2002).

Shortly thereafter, however, in 2004, fighting broke out in what has come to be known as the Kivu Conflict (in eastern DRC) (Stearns, 2012). A former pro-Rwanda rebel group, the Democratic Forces for the Liberation of Rwanda (FDLR) (a Hutu extremist group) took up arms against the military of the DRC (known as the FARDC) (Peacebuilding Data, 2014).

In 2006, the DRC held its first multiparty elections in 41 years. In an effort to ensure stability of the election in the midst of ongoing conflict in the Kivu region, the international community donated a great deal of funds, and the UN deployed its largest peacekeeping operation (MONUC) to help. However, the election still initiated some turmoil, and some election monitors expressed concerns about the fairness and transparency of the election (The Carter Center, 2007). At first, neither the incumbent J. Kabila nor the primary contender Jean-Pierre Bemba of the MLC (now a political party) secured a majority of the vote; as a result, a run-off election was cast.

J. Kabila was named president after the run-off election, but not without contention – some of which manifested into further armed clashes and instability (Integrated Regional Information Networks, 2006). In addition to clashes in Kinshasa (the capital), led by forces loyal to opposition leader Bemba, conflicts continued to occur

in the Kivu region as well, now also involving the National Congress for the Defence of the People (CNDP) (a rebel Tutsi group) led by Laurent Nkunda, a former officer of the RCD, in opposition to both the FDLR and the FARDC (Human Rights Watch, 2007).[53] Though conflict in Kinshasa ultimately dissipated after Bemba eventually left the DRC,[54] the conflict in the Kivu region continued, displacing many, fueled in large part over ethnic tensions and vying for control of resources in the region (International Refugee Rights Initiative, 2010) – factors common to most of the conflicts in the history of the DRC. Though Nkunda signed a peace pact in 2008, rebels loyal to him continued fighting army troops (New York Times, 2008).[55] The conflict has been plagued by an extremely high rate of sexual violence (in large part against women, but also against men and children) and the use of child soldiers, in addition to the murders and pillaging often associated with war (United Nations, 2013a).

To make matters worse, the Ugandan Lord's Resistance Army (LRA) (a religious militant group led by Joseph Kony), making use in large part of child soldiers, began to set up bases in northeast DRC. Though a joint initiative was launched by the DRC,

[53] Later reports suggest that the unrest involving Nkunda and the Tutsi rebel group was not a direct result of the election. The Brussels-based think tank, International Crisis Group, suggests, "The trigger appears to have been the killing of a Tutsi civilian who was close to one of the commanders in this group…He was killed at a police checkpoint in the town of Saké just to the west of Goma. So after he was killed, the dissident forces, who are under the command of General Laurent Nkunda launched an attack on the town of Saké" (as cited in Voice of America, 2009).
[54] Later in 2009, the ICC ordered Bemba to stand trial for crimes committed in the Central African Republic (originally on charges of three counts of crimes against humanity and five counts of war crimes, though this was reduced in 2010 to two counts of crimes against humanity and three counts of war crimes). The trial is still continuing.
[55] Fighting as a part of the Kivu Conflict has recently restarted in 2012 and is now still ongoing. This second phase of the conflict is however beyond the temporal scope of this project.

in conjunction with Uganda and South Sudan, against the LRA's bases in the DRC, hundreds of civilians were killed as a result of backlash (BBC, 2014a).[56]

Meanwhile, conflict between the DRC military (with support from the Rwandan military) and the Tutsi rebels of the CNDP (led by Nkunda) continued; Hutu militias were also involved in clashes in this region. This continued until 2009, when J. Kabila approved a new law "giving amnesty to [these] armed groups as part of [a] deal meant to end fighting in [the] east" (BBC, 2014a), which temporarily ended the Kivu Conflict.[57]

In 2011, presidential and parliamentary elections were again held in the DRC. Though these elections again saw instability and violence, as well as criticism from abroad regarding their fairness and transparency, J. Kabila won reelection, beating opposition leader Étienne Tshisekedi (The Carter Center, 2011).

In 2012, former members of the CNDP mutinied against the government (which was backed by MONUSCO) into which they had been absorbed following the agreement of 2009, forming the March 23 Movement (M23) (Al Jazeera, 2012). The group initiated fighting, in what has since come to be known as the M23 Rebellion (Gouby and Mwanamilongo, 2012). In 2013, the UN Security Council authorized an intervention brigade within the existing operation in the country "to help neutralize

[56] As these clashes do not constitute an ethnic civil conflict, they are not included in the analysis presented later this chapter.
[57] Conflict events occurring beyond 2008 are beyond the scope of this project as these data have yet to be geocoded for analysis.

armed groups in this volatile part of the country" (United Nations, 2013). The brigade was

> the first time in the United Nations' 68-year history that peacekeeping forces [had] been deployed offensively against a particular group. Most U.N. peacekeeping missions are neutral and impartial, merely present to maintain peace, rather than … [to] attack a particular party within a conflict. (The International, 2013)

Bosco Ntaganda, alleged founder of the M23 (formerly head of the FPLC and military chief of staff of the CNDP) surrendered himself to the ICC to face war crimes charges (The Guardian, 2014). Soon thereafter, the M23 surrendered as well after signing peace deals with the government.

Civil conflict in the DRC has long involved rebel groups – especially those recruiting along ethnic lines, and making claims on behalf of their ethnic group – taking up arms against the state, and at times one another. This trend continues to the present day as rebel groups continue fighting for these causes. Ethnicity is an especially salient factor in the DRC, and hence is often used as a mobilizing mechanism by ethnic elites and rebel leaders. As suggested in the work of Gurr (1993, 2000) and many others, members of politically, economically, and culturally disadvantaged groups have a higher likelihood of being involved in protests and rebellions. In countries like the DRC where political, economic, and cultural characteristics of groups tend to align – especially with ethnicity – this likelihood of violence and rebellion becomes increasingly plausible. Add to this the presence of resources (both natural and foreign aid) – access to which is a cause for which many would raise up arms – and it is not surprising to see the history of the DRC littered with violence and conflict –

specifically including the Tutsi-Banyamulenge in large part, yet also the Mbandja and the Mongo.

6.2 Development, Inequality, and Conflict in Africa

The troubles described in the prior section are not unique to the DRC, but rather can be seen in large part across most of Africa. The prevalence of inequality, patronage-based politics, ethnic exclusion and discrimination, struggles over access to resources, and the culminating effects of these factors on civil conflict are common occurrences in many other African states as well.

As political leaders have more to gain through "extensive unproductive, profit-seeking activities in a political system they control than from long-term efforts [of building] a well-functioning state in which economic progress and democratic institutions flourish" (p.15), leaders in these types of states continue to capitalize on these revenues through "expanding patronage to marshal elite support, [even though this often comes] at the expense of economic growth" (Nafziger, 2006, p.14). In addition to harming growth, this allocation of patronage, especially if done unequally, fosters economic discrimination, and "may generate relative deprivation and trigger affected groups to mobilize," leading to violence (Nafziger, 2006, p.14).

6.2.1 Ethnopolitics in Africa

Division along ethnic lines has long been salient in African politics as "ethnic group memberships underlie people's perceptions of how patronage resources are

distributed by those who enjoy access to them" (Posner, 2005, p.91). As a result, individuals tend to vote along ethnic lines in many African states. A source of revenue that can be used towards supporting a patronage system are aid flows, a resource that began to be more readily given to African states during the Cold War by the United States and the Soviet Union in their attempts to secure allies (Nafziger, 2006, p.16) that still continues to flow today.

By definition, a patronage system fosters inequality as certain individuals reap the benefits of the system with greater access to resources to the detriment of other individuals. If these less-advantaged populations are able to identify "the perpetuators of their poverty and suffering," insurgency is more likely (Nafziger, 2006, p.16), especially if they are able to mobilize (for example, see Gurr 1993, 2000). In these situations, ethnicity can be a cost-effective strategic resource that can be an important mobilizing source in organizing collective political action (Scarritt and Mozaffar, 1999). Ethnic elites can "use identification with ethnic and regional communities, and even accentuate that identification, to transfer potential hostility from inequalities and power disparities within their communities to the elites and subjects of other communities" (Nafziger, 2006, p.17). Thus, if this inequality resulting from patronage distribution falls along ethnic lines – where certain groups receive significantly more or less than others – there is a higher likelihood that this difference will become increasingly salient, providing a source of mobilization for the disadvantaged.

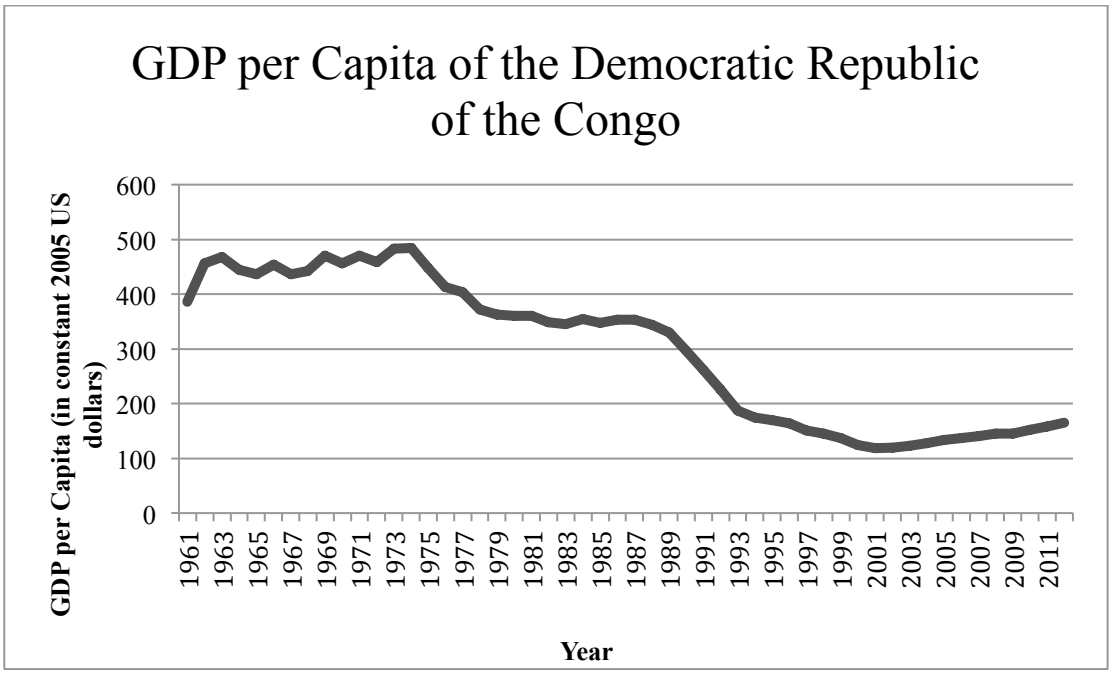
6.3 Development, Inequality, and Conflict in the Democratic Republic of the Congo

The DRC is the eleventh largest country in the world, spanning approximately 2.3 million square kilometers; it is a country incredibly rich in natural resources (e.g., cobalt, copper, diamonds, gold, etc.) (CIA World Factbook, 2014). However, as a result of being immensely resource-rich, the DRC has been plagued by a number of civil conflicts over securing power to these resources – an archetype of the 'resource curse.' As the country is not able to meet development goals using revenue gleaned from its natural resources, the country receives a significant amount of foreign aid. The DRC is usually in the list of top ten countries receiving the highest percentages of global Official Development Assistance (ODA) annually, and in the list of top five countries receiving the highest percentage of its gross national income (GNI) in ODA (Global Humanitarian Assistance, 2014) – and it continues to rely on its inflow (United Nations, 2014). Despite access to this aid revenue, the DRC maintains a history of aid ineffectiveness (Reardon, Jensby, Boesen, Tian, and Malinak, 2012). Leaders have often been known to use aid in the country for purposes other than attaining development goals (e.g., fueling patronage, kleptocracy and embezzlement, etc.).

As a result of these mishaps, the DRC has long been "one of the poorest countries in the world in terms of per capita income" (Reardon et al., 2012, p. 60). Though per capita GDP fell significantly beginning in the early 1970s under Mobutu until

reaching an all time low of less than $120 a person, GDP per capita has begun to steadily increase since the early 2000s (see Figure 6.1).

Figure 6.1. GDP per Capita of the Democratic Republic of the Congo (in constant 2005 US dollars).



Data from the World Bank Development Indicators (World Bank, 2014).

6.3.1 Ethnopolitics in the Democratic Republic of the Congo

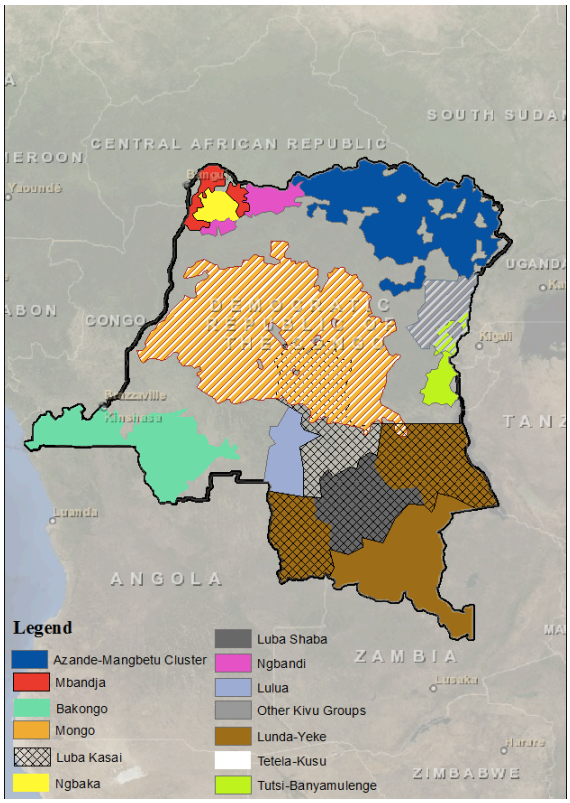
The DRC ranks twentieth in population with a population of approximately 77.4 million people (CIA World Factbook, 2014). In addition to its sheer size, the population is also incredibly diverse. The Pew Research Center categorizes the DRC as one of the most ethnically diverse nations in the world (Morin, 2013), with over 250 ethnic groups. Politically relevant ethnic groups (i.e., those that are represented by a political organization in national politics) benefit from having higher

mobilization capacity. These organizations that seek and win office hold power, and are often able to reap benefits for their ethnic kinsmen. On the opposite end of the spectrum, groups subjected to state-led political discrimination (i.e., groups that are politically excluded) are also 'politically relevant,' though they are cursed with targeted efforts by those in power to ensure they reap no benefits. These groups too however, when mobilized by collective identity and common grievances, can be a powerful force.

Voting along ethnic lines is prevalent in the DRC (Ngoy-Kangoy, 2008), and mobilizing rebel groups to fight along these lines is even more so (see the history of the DRC above). Most of the conflicts the DRC has seen in its history involve an ethnic component – whether fighting on behalf of an ethnic group to counter ethnic discrimination and exclusion, or mobilizing along ethnic lines to fight toward securing access and power over resources. "The evidence strongly supports grievance-based interpretations, without dismissing the influence of material factors" (Cederman et al., 2014, p.87) such as vying for access to resources and aid.

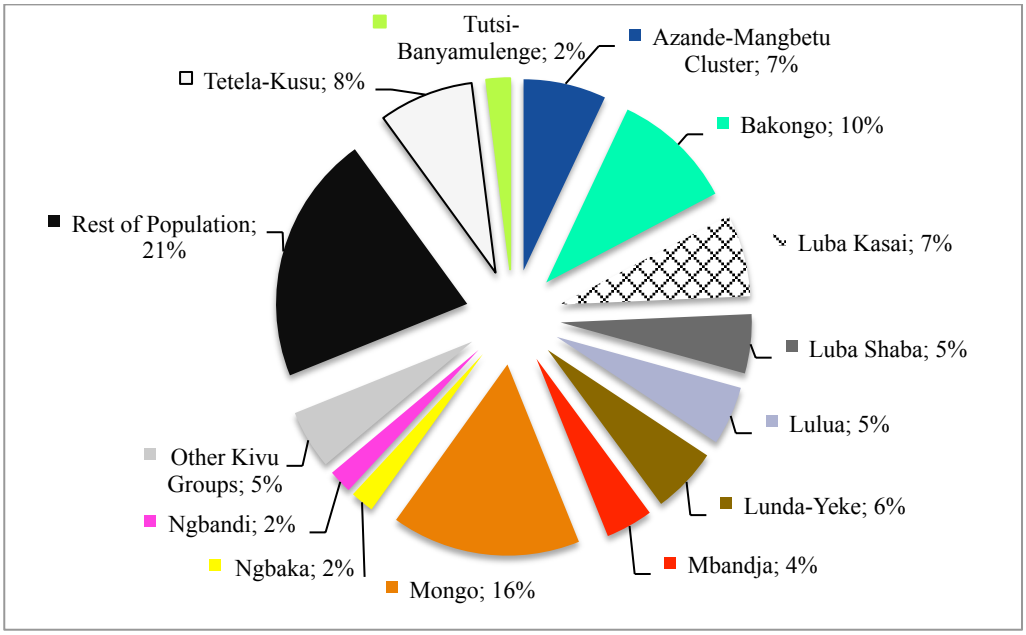
Figure 6.2 offers a map of the DRC, where all politically relevant ethnic groups are highlighted and labeled. This map is based on data from the GeoEPR project (Wucherpfennig, Weidmann, Girardin, Cederman, and Wimmer, 2011), discussed in further detail in the section below. Figure 6.3 compares the sizes of these ethnic groups through expressing each group's percentage size of the population; these data

Figure 6.2. Politically Relevant Ethnic Groups of the DRC by Geographic Location.



Data from the GeoEPR dataset (Wucherpfennig et al., 2011).

Figure 6.3. Politically Relevant Ethnic Groups of the DRC by Percentage Size of Population.



Data from the EPR dataset (Cederman et al., 2009).

come from the Ethnic Power Relations dataset (Cederman et al., 2009), also discussed in further detail below.

6.4 Data

Assuming that ethnicity plays a significant role in both politics and ultimately civil conflict in the DRC – and that attempts to secure power over access to resources in regions is a cause that fuels much of the violence in the country – I examine whether aid has similar effects as a resource in the country, and whether the way in which it is dispersed might play a role in influencing civil conflict in the DRC.

Using GIS to explore new data drawn from a number of varying datasets and projects, I offer a series of maps as tools in which to visualize the spatial relationships that exist amongst these variables.

6.4.1 Aid Projects

To map aid projects, I use data from the Aid Locations during Civil Wars South of the Sahara dataset, v.1.0 (Findley et al., 2011a), as I used in the subnational (disaggregate) statistics analysis in the previous chapter. This dataset georeferences aid commitments that are included in the AidData project (Tierney et al., 2011). Specifically, aid projects that were "committed to African countries in which there are ongoing armed conflicts" since 1989 are coded (i.e., aid projects are only coded

for active conflict years) (Findley et al., 2011b, p.1996).[58] Conflict years are determined by using data from the UCDP GED.[59] As I measure conflict intensity here (i.e., given that a civil conflict occurs, how intense is the conflict?), as opposed to the likelihood of conflict (onset), I feel confident that using aid data that are coded in this way is not problematic. I include only the most precisely geolocated data points here – aid projects that are coded with geographic coordinates at a more precise level than first-order administrative divisions – as discussed in the previous chapter. By doing so, I can ensure that I am not drawing conclusions based on geographic proximity that may in reality greatly differ from what may be modeled by the dataset. Of the 8,336 georeferenced aid projects coded in the DRC for 1996 to 2008, I use the 2,398 georeferenced aid projects that are coded with geographic coordinates at a more precise level than first-order administrative divisions.

After each aid project is plotted using its geographic coordinates, I used kernel density analysis to calculate the density of aid projects in the country. By doing this, I was able to create a surface map that identifies areas in which aid projects are highly concentrated and areas that do not receive any or many aid projects – aid 'hot spots' and 'cold zones.' In order to account for and quell fears of endogeneity, along with each of these aid-project-density maps, I include a map of all conflict (not solely ethnic civil conflict) the prior year. By comparing aid project disbursement to where conflict occurred in the previous year, I feel confident in making my assumption that

[58] See Table A.1 in the Appendix for an explanation of years for which aid data are coded as a part of the Findley et al. (2011a) dataset.
[59] This is a reason why I choose to use the UCDP GED for conflict geodata in these maps, as opposed to other georeferenced conflict datasets (e.g., ACLED).

aid does not solely go to where conflict occurred in the prior year, but rather the allocation of aid is a function of the ethno-political dynamics in the country. Furthermore, when drawing conclusions regarding ethnic civil conflict during time *t*, I draw on aid and ethnic exclusion data from time *t*-1 in order to account for temporal causation.

The subnational (disaggregate) statistical analysis in the previous chapter determined that there was not a substantively significant effect of the *size* of aid projects. Findings suggested that the more significant and substantive effect is regarding the *location* of aid projects. As a result, I chose to not weight aid projects by the monetary size of each project here. This way, the surface map created by the kernel density tool would be able to more accurately determine the geographic areas in which the *number* of different aid projects was highest – instead of creating a surface map of where the most aid money was going – in line with my theory. Again, as in the previous analytic chapters, these data are lagged for analysis.

6.4.2 Ethnic Groups – Location and Power Status

To map ethnic group location, I use data from the GeoEPR dataset, v.2.0 (Wucherpfennig et al., 2011). These data cover ethnic power relations in the DRC from 1960 (after independence) to 2009. This dataset geocodes all politically relevant ethnic groups from the EPR dataset used in the previous chapters' statistical analyses, where an ethnic group is defined as politically relevant if "at least one political organization claims to represent it in national politics or if its members are

subjected to state-led political discrimination," where discrimination is defined as "political exclusion directly targeted at an ethnic community" (Cederman et al., 2010, p.99). Here ethnicity is defined as "any subjectively experienced sense of commonality based on the belief in common ancestry and shared culture" (Cederman et al., 2010, p.98). Figure 6.2, introduced previously, displays the location of all politically relevant ethnic groups in the DRC.

> GeoEPR offers time-varying information, although with less precision. In particular, the geocoding records important changes in settlement patterns caused by things such as ethnic cleansing, large-scale migration, and varying state borders…[however,] gradual, incremental changes – for example, those driven by long-term trends in urbanization – are not captured. (Cederman, Girardin, and Wucherpfennig, 2014, p. 80)

In this case study of the DRC, settlement patterns of the 13 politically relevant ethnic groups and their relative sizes are time invariant, though their power status / level of exclusion is not.[60]

To document each ethnic group's power status, I use data from the Ethnic Power Relations (EPR) dataset, v.3.0 (Cederman et al., 2009), which offers data on all politically relevant ethnic groups: identifying each group's access to state power (i.e., the degree to which representatives of the ethnic group held executive-level state power[61] – from total control of the government to experiencing overt political discrimination)[62] as well as the size of the ethnic group, etc. Figure 6.3, introduced

[60] Or rather, if they do change at all, this change is not captured in these data by the dataset.
[61] "Power access is based on the influence over the country's executive, whether in terms of cabinet seats or control of the army in military regimes" (Cederman et al., 2014, p.75).
[62] "The demographic weight and access to power are provided as absolute, rather than relative, measures" (Cederman et al., 2014, p.75).

previously, displays information on the size of all politically relevant ethnic groups in the DRC.

The online portal GROW^{up} (Geographic Research on War, unified platform) supports the integration of these data.[63] Using these datasets, I was able to overlay the geocoded settlement areas of politically relevant ethnic groups, while documenting their political exclusion level, in the DRC over the density aid maps discussed previously. By doing this, I was able to create a map that identifies where aid 'hot spots' and 'cold zones' are located in relation to where ethnic groups (with varying power statuses) are settled.

Though not testing the relative gains from aid of ethnic groups specifically, this analysis offers a proxy for who is likely receiving benefits from aid flows based on where projects are going. "Data on relative wealth at the group level has been notoriously difficult to find" (Cederman et al., 2014, p.84), and as a result, studies have often used proxy measures in a similar way. Cederman et al. (2011), for example, "adopt a spatial approach that estimates regional income based on geographic data on economic wealth provided in grid-cell format," and then use the settlement patterns of ethnic groups (from GeoEPR) as 'cookie cutters' to determine the relative wealth of each ethnic group (Cederman et al., 2014, p.84). I take a similar approach here in calculating a surface map of the country based on the income from aid projects using geocoded aid data, and then use the settlement patterns of

[63] "GROW^{up} is effectively a federation of sources, offering convenient and easy access to complex conflict data, rather than a new dataset" (Cederman et al., 2014, p.81).

ethnic groups (from GeoEPR) as 'cookie cutters' to determine how much aid can be attributed to each ethnic group.

6.4.3 Ethnic Civil Conflict

To map civil conflict, I use data from the UCDP Georeferenced Event Dataset (GED), v.1.5-2011 (Sundberg and Melander, 2013). This dataset is an event-based and georeferenced dataset in which "each unit of analysis is a single event of organized violence in which it is believed that at least 1 person was killed" (Sundberg et al., 2010). These data cover 352 conflicts in the DRC from 1994 to 2010, and also offer information about the intensity of the conflict. I use the dataset's best estimate of the number of fatalities as a measure of conflict intensity.

In order to focus only on ethnic civil conflicts, I use the ACD2EPR docking dataset, v.1.2 (Wucherpfennig et al., 2012), which offers information on the linkages between ethnic groups and rebel organizations. This in effect measures the involvement of ethnic groups in civil conflicts that occur by determining from which ethnic groups, if any, a particular rebel organization recruits fighters. Two important properties of the linkages between ethnic groups and rebel organizations are recruitment and claim. In terms of recruitment, the dataset codes

> the ethnicity of the fighters by indicating from which ethnic groups, if any, a particular rebel organization recruits. A significant number of the group members must participate actively in the organization's combat operations for such a linkage to apply. Recruitment along ethnic lines is, by itself, insufficient because this may be merely the result of local availability, rather than a deliberate strategy or related to an organization's actual agenda. (Cederman et al., 2014, p.81)

In terms of exclusive claim, the dataset codes "whether a given rebel organization publicly claims that it is operating on behalf of the ethnic group in question – i.e., [if the rebel group] pursues an objective that is directly linked to the [ethnic] group's fate" (Cederman et al., 2014, p.81). Only if recruitment and exclusive claim occur jointly is the rebel organization deemed an ethnic rebel organization.

Only armed, ethnic, state-based civil conflicts in the DRC are included in this analysis. These are armed civil conflicts in which one of the warring parties is the government of the DRC, while the other party is an ethnic, rebel organization (as described in detail above). As a result, civil conflicts in which both warring parties are (ethnic) rebel organizations – not involving the government of the DRC in any way – are not included in this analysis. This specification truncates the dataset here to 223 ethnic civil conflicts.

By doing this, I was able to create a map that identifies where aid 'hot spots' and 'cold zones' are located in relation to where ethnic groups are settled, and can see the spatial relationship between this relative access to resources and ethnic, civil conflict – both the effects on ethnic civil conflict location and intensity.

In the following section, I present maps of aid flows, ethnic group settlement areas, and civil conflicts in the DRC between the years 1996 to 2008. In describing each conflict and the groups involved, I utilize maps to display the role that aid allocation may have played in contributing to conflicts.

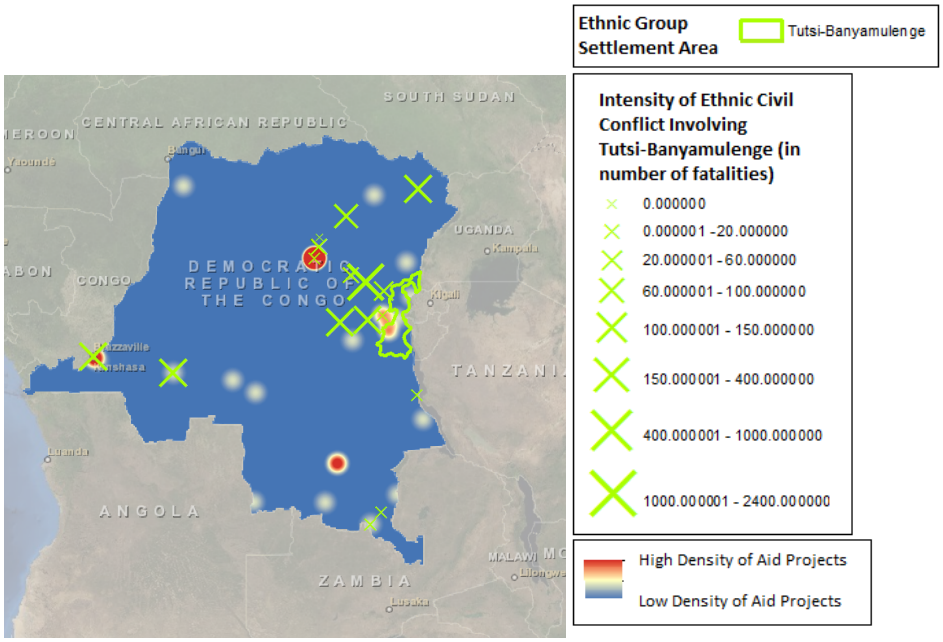
6.5 Spatial Analysis Using Maps

The ethnic Tutsi of the DRC – the Banyamulenge – have been involved in numerous conflicts during the history of the DRC. Once favored historically by the Belgians, after independence (in 1960) they reaped the resentment this had caused in other ethnic groups, experiencing political and social discrimination (Minorities at Risk Project, 2009). Under Mobutu's rule, "they were denied political rights and were confined to renting land from local chiefs in Kivu and paying additional taxes" (Minorities at Risk Project, 2009). Meanwhile, Mobutu continued delivering patronage to his ethnic kinsmen (the Ngbandi) (Minorities at Risk Project, 2003).

After Mobutu's government threatened to expel the Tutsis from Zaïre, the ethnic rebel organization the AFDL, made up in large part by ethnic Tutsi-Banyamulenge, led by Laurent Kabila, took up arms against Mobutu in 1996 (Jullien, 2014). Figure 6.4 shows aid disbursement for 1996 (with red aid 'hot spots' ranging to blue aid 'cold zones'). The map suggests that though the Tutsi-Banyamulenge received a small number of aid projects during this time (see the ethnic group settlement area outlined in green in the east), they did not receive many. This small amount that they did receive, however, likely did much to further highlight the relative deprivation that this group endured, pushing them to rebel. Here I assume that individuals are cognizant of the amount of aid that they receive, especially relative to what other groups receive. The map also shows ethnic civil conflict involving the ethnically excluded Tutsi-Banyamulenge in 1997 (i.e., lagged data), showing how the AFDL

forces, under L. Kabila, marched from eastern DRC to Kinshasa, the capital, in the west, while involved in large-scale, high intensity conflict as a part of the First Congo War.

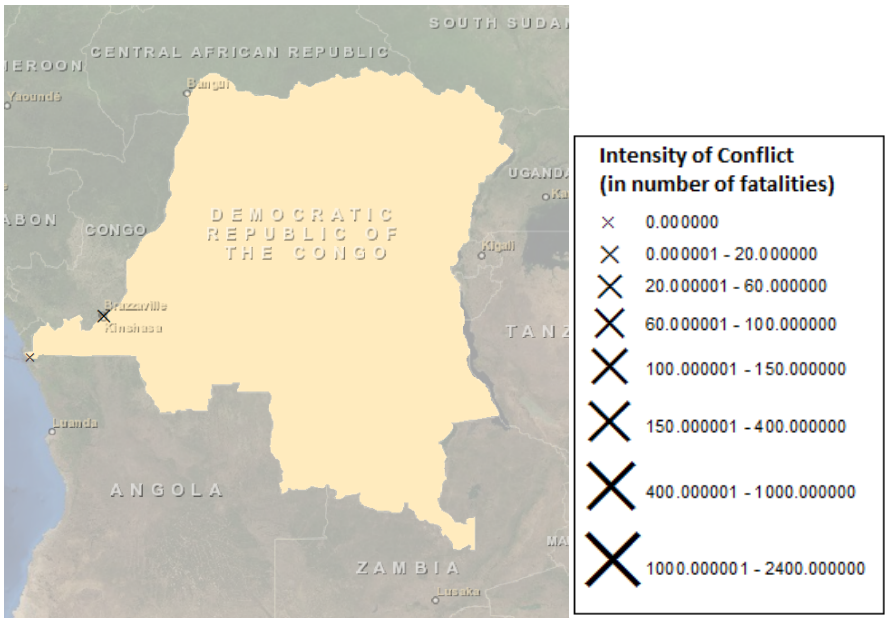
Figure 6.4. Aid Allocation in 1996; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 1997.



Prior to this disbursement of aid in 1996 (seen in Figure 6.4), there were not many armed conflict events occurring in the DRC in the years prior in line with the UCDP GED, where an event is "the incidence of the use of armed force by an organized actor against another organized actor, or against civilians, resulting in at least 1 direct death … at a specific location and for a specific temporal duration" (Sundberg et al., 2010, p.4). Figure 6.5 displays where conflicts occurred in the DRC in 1994 – a pair of conflicts is geocoded as occurring in the west, the best estimates of fatalities for which total to 2 deaths. There were no armed conflicts geocoded for 1995. The fact

that aid was not allocated to areas experiencing conflict should help minimize worries of endogeneity and suggests that aid in itself may be helping influence conflict.

Figure 6.5. All Conflict Events in 1994.



By 1997, the AFDL had overthrown Mobutu's regime and L. Kabila took power. During 1997, with L. Kabila freshly in office, his regime depended highly on the Rwandan and Ugandan governments as well as the Tutsi-Banyamulenge – those who had together helped him become president (Turner, 1997). L. Kabila's army chief of staff, chief of national security, and the foreign minister were all ethnic Tutsi (EPR, 2009); as a result, the group enjoyed some access to power during this year. Here I assume that having individuals in positions of power helps to ensure access to resources for their ethnic kinsmen. Figure 6.6 shows aid disbursement for 1997. The map suggests that the Tutsi-Banyamulenge benefitted from an increase in the number of aid projects allocated to them during this time. In 1998, however, L. Kabila's

loyalties began to change as he slowly turned his back on those who had helped him secure the presidency – reducing the influence of ethnic Tutsi in his cabinet by appointing new candidates. The resulting effect was an attempt by the Tutsi to secure their position: not wanting to be deprived of something they believed ought to be theirs, the ethnic Tutsi-Banyamulenge, now under the auspices of the RCD rebel organization (which included many former AFDL members) and the MLC rebel organization became once again involved in large-scale, high intensity conflict, this time as a part of the Second Congo War. Here I assume that individuals are cognizant of deprivation that they may experience temporally, and that this deprivation translates into grievances, which in turn manifest into conflict.

Figure 6.6. Aid Allocation in 1997; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 1998.

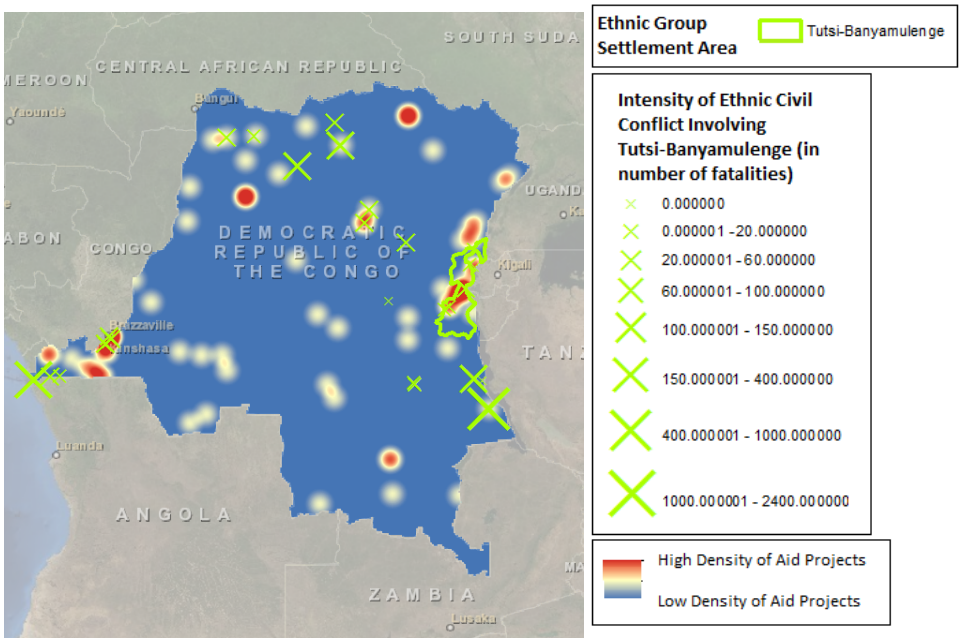
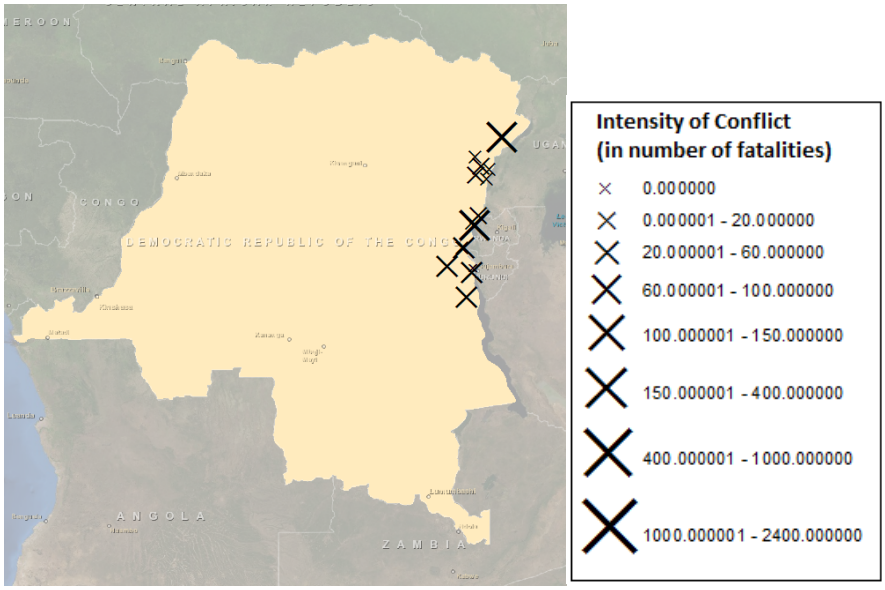


Figure 6.7 displays all armed conflict events in the DRC for the year 1996. The fact that conflict is concentrated in only one region while aid projects seem to be

disbursed in various locations (to varying extents) around the country (see Figure 6.6) again helps minimize worries of endogeneity based on the notion that aid was only allocated to areas previously experiencing conflict.

Figure 6.7. All Conflict Events in 1996.



The involvement of the RCD and MLC in the Second Congo War continued, though they began to involve other ethnic groups as well – namely the Mbandja, who in 1999 saw much large-scale, high intensity conflict across the country. The Mbandja are an ethnic group located in the northwest of the country (outlined in red). Powerless at the time, they are settled in an area in close proximity to other ethnic groups who received aid projects, such as the Ngbaka (outlined in yellow). They, however, received no aid in 1996, though a small number of aid projects were allocated to Ngbaka settlement areas nearby (see Figure 6.8).

The following year in 1997, a larger number of aid projects were allocated to Ngbaka areas, with very few in Mbandja settlement areas (see Figure 6.9), and again similarly in 1998 (see Figure 6.10). This relative deprivation in receiving a smaller number of projects than others in their close proximity might have exacerbated the group's powerlessness, assuming individuals are aware of the allocation of aid on the ground. As a result, in 1999, the Mbandja became involved in large-scale ethnic conflict across the country under both the RCD and the MLC (see Figure 6.10). Figures 6.8, 6.9, and 6.20 show aid flows (highlighting this region) in 1996, 1997, and 1998, with subsequent effects on ethnic civil conflict involving the Mbandja in 1997, 1998, and 1999, respectively. When looking at the northwest region specifically over time, one can see the gradual increase in aid projects to nearby (Ngbaka, outlined in yellow) areas along with the lack of projects going to Mbandja (outlined in red) areas in 1996 and 1997 (Figures 6.8 and 6.9), and the subsequent effect it has on civil conflict involving the deprived Mbandja (conflict sites in red) in 1999 (Figure 6.10).

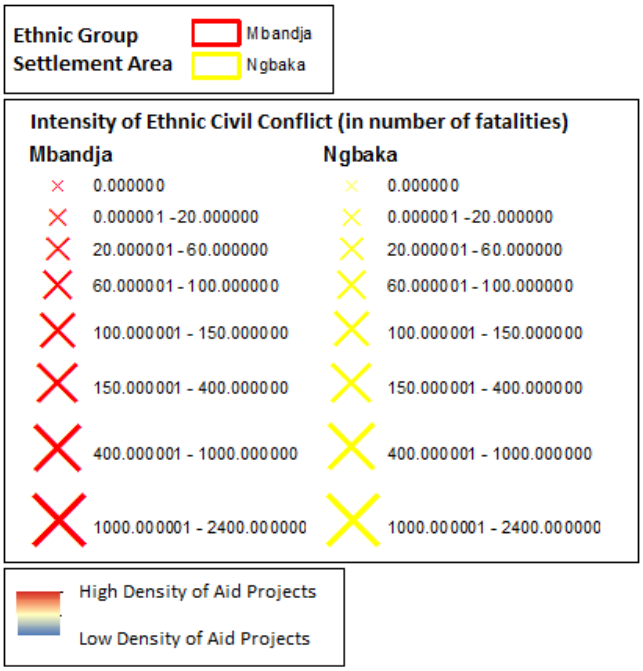
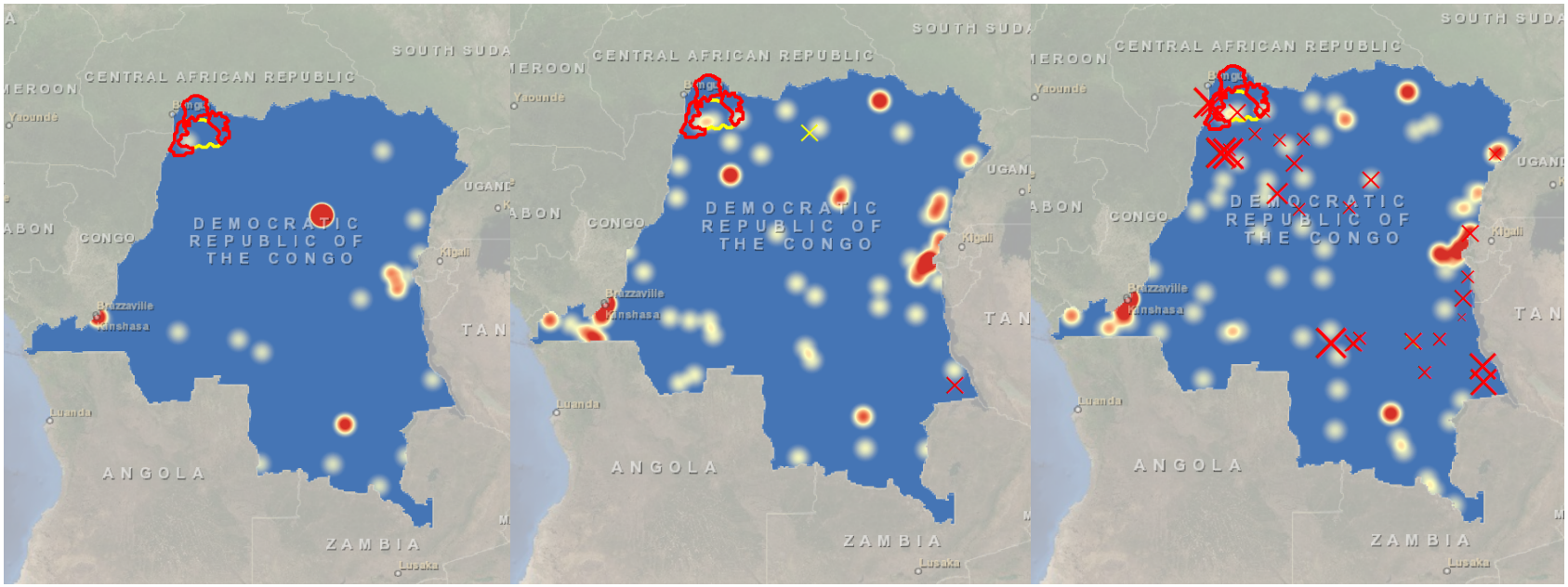


Figure 6.8. Aid Allocation in 1996; Ethnic Civil Conflict Involving the Mbandja and Ngbaki in 1997.

Figure 6.9. Aid Allocation in 1997; Ethnic Civil Conflict Involving the Mbandja and Ngbaki in 1998.

Figure 6.10. Aid Allocation in 1998; Ethnic Civil Conflict Involving the Mbandja and Ngbaki in 1999.



As mentioned previously, no armed conflict events were geocoded in the DRC for 1995, suggesting that aid allocation in 1996 (seen in Figure 6.8) is not an effect of the location of prior conflict. Figure 6.11 displays all armed conflicts in the DRC in 1996. Again, the fact that conflict is concentrated in only one region of the country (in the east) while aid projects seem to be disbursed in various locations around the country in 1997 – such as in the northwest region, as described here (see Figure 6.9) – again helps minimize worries of endogeneity that would suggest that aid is only allocated to areas experiencing conflict previously. Lastly, Figure 6.12 displays all armed conflict events in the DRC in 1997. Again, there does not seem to be a correlation between where armed conflicts occur in 1997 and where aid projects are allocated in 1998 (see Figure 6.10).

The involvement of the RCD (in large part) and MLC in the Second Congo War also continued through the involvement of the Mongo, who in 2000 saw much large-scale, high intensity conflict across the country. The Mongo are an ethnic group located in the center of the country (outlined in orange). Though powerless at the time, in 1996 they received a high number of aid projects, evident by one especially large aid 'hot spot' (see Figure 6.13). Though the trend of receiving a high number of aid projects continued in 1997 (Figure 6.14) – with multiple aid 'hot spots' in their settlement area – the number seems to diminish in 1998 (Figure 6.15), and even more so in 1999 (Figure 6.16). Thus being deprived of what they might think they ought to receive could have intensified the group's powerlessness, assuming awareness of aid

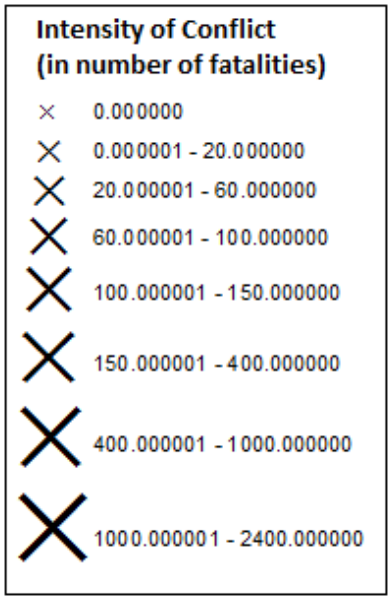


Figure 6.11. All Conflict Events in 1997.

Figure 6.12. All Conflict Events in 1998.

allocation processes, culminating in the group's involvement in the conflict efforts of the RCD (in large part) as well as the MLC. Figures 6.13, 6.14, 6.15, and 6.16 show aid flows (highlighting this region) in 1996, 1997, 1998, and 1999 with subsequent effects on ethnic civil conflict involving the Mongo in 1997, 1998, 1999, and 2000, respectively.[64]

As mentioned previously, no armed conflict events were geocoded in the DRC for 1995, suggesting that where aid is allocated in 1996 (seen in Figure 6.13) is not an effect of prior conflict location. Again, Figure 6.7 displays all armed conflict events in the DRC in 1996; the way in which conflict is concentrated in the east while aid projects seem to be disbursed in various locations around the country in 1997 – such as in the center region, as described here (see Figure 6.14) – again helps minimize worries of endogeneity suggesting aid might only be allocated to areas experiencing conflict previously. Figure 6.11 displays all armed conflict events in the DRC in 1997. Again, there does not seem to be a direct correlation between where armed conflicts occur in 1997 and where aid projects are allocated in 1998 (see Figure 6.15). Lastly, Figure 6.12 displays all armed conflict events in the DRC in 1998. When comparing these conflict sites to where aid is allocated in 1999 (see Figure 6.16), it is evident that aid is not only allocated to where prior conflict occurred, as evidenced

[64] As the Tetela-Kusu share a settlement pattern with the Mongo in this region, it is also possible here that aid allocated to this area emphasized relative deprivation between these two ethnic groups, and that this was the mechanism that pushed the Mongo to rebel. At this level of analysis, the exact recipient/beneficiary of each aid project is unclear; as a result, when ethnic group settlement patterns cover the same geographic area (as the Mongo and Tetela-Kusu do), deciphering between which group may have received the aid is not possible. This highlights one of the unfortunate limitations of this sort of study.

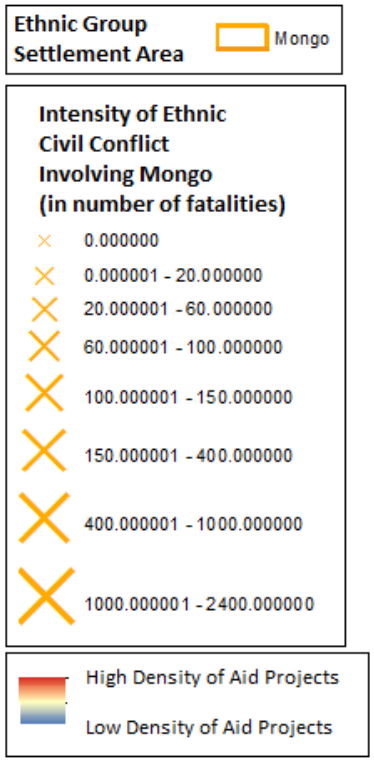


Figure 6.13. Aid Allocation in 1996; Ethnic Civil Conflict Involving the Mongo in 1997.

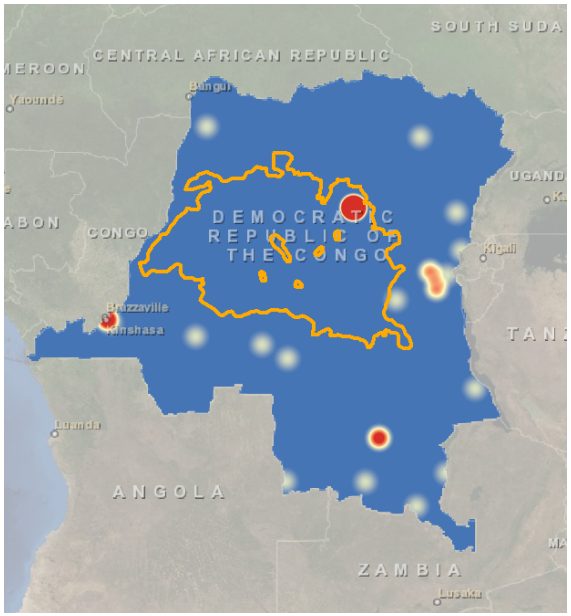


Figure 6.14. Aid Allocation in 1997; Ethnic Civil Conflict Involving the Mongo in 1998.

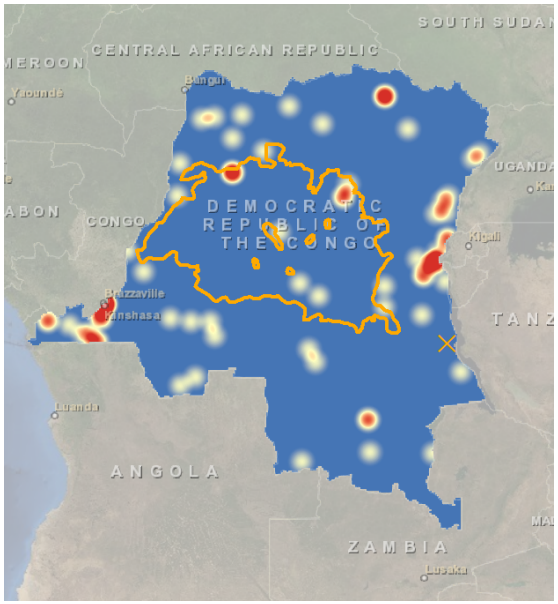


Figure 6.16. Aid Allocation in 1998; Ethnic Civil Conflict Involving the Mongo in 1999.

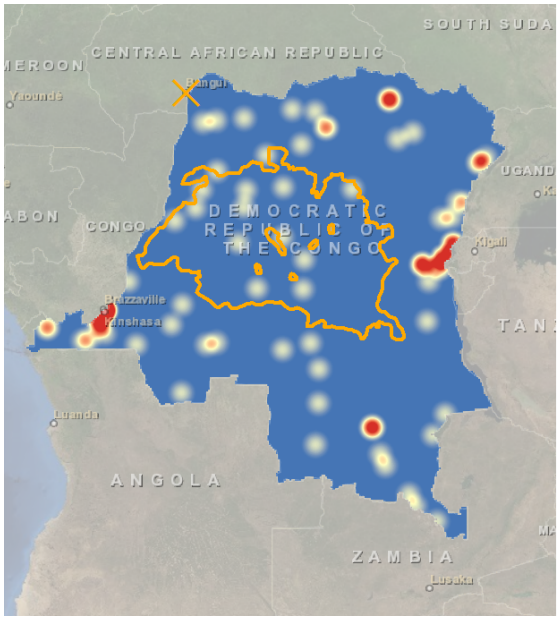
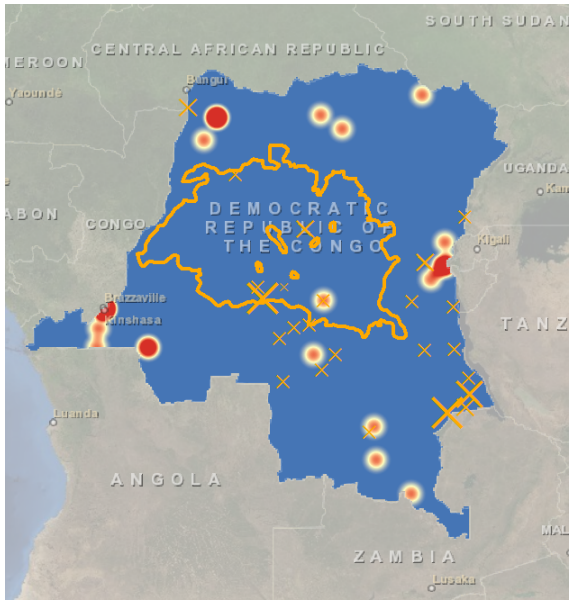


Figure 6.17. Aid Allocation in 1999; Ethnic Civil Conflict Involving the Mongo in 2000.



for example by aid 'hot spots' in 1999 in the northeast, center, and south – none of these areas saw (significant) conflict in 1998.

One can see the large number of aid projects the Mongo receive in 1996 (see bright aid 'hot spot' in Figure 6.13), as well as in 1997 (see various-sized aid 'hot spots' in Figure 6.14). In 1998, one can see the presence of fewer aid 'hot spots' (see the fewer aid 'hot spots' in Figure 6.15) and even more so in 1999 (see the almost complete lack of aid 'hot spots' in Figure 6.16). Also apparent is the subsequent effect it has on civil conflict involving the deprived Mongo (conflict sites in orange) in 2000 especially (Figure 6.16).

The following years highlight years in which the DRC was plagued by the Ituri conflict in the northeast region of the DRC – a conflict that left an estimated over 60,000 people dead (Kisangani and Bobb, 2009), and many suffering from grave human rights abuses (Human Rights Watch, 2012). A number of leaders of the rebel groups involved in this conflict were later tried for war crimes in the International Criminal Court (ICC), including Thomas Lubanga (the first person ever convicted by the ICC), Bosco Ntaganda, and Germain Katanga. As this conflict involved hostilities amongst multiple ethnic rebel organizations – not against the government – the conflict is not coded as a state-based conflict in the UCDP GED, and hence is not included in this analysis as geocoded data regarding the geographic locations of conflicts is unavailable. As a result, analysis examining the potential role of aid in this conflict is left to future research to explore.

Though not directly overthrown as a result of the Second Congo War, in 2001, L. Kabila was assassinated (by one of his own bodyguards). Subsequently, his son, J. Kabila, assumed the presidency. In an attempt to negotiate peace talks, he set in place a transitional government to rule until the general elections in 2006 – what would be the first multiparty elections in the country in 41 years.

In 2004, the Kivu conflict began, originally as an armed conflict between the military of the DRC (FARDC) – later backed by the UN Mission in the DRC (MONUC) – and the FDLR, a Rwandan ethnic Hutu rebel group. Since this conflict, at this point, did not qualify as a civil conflict (since it was not an armed conflict involving the government of a country and a rebel organization within that same country), it is not coded as such in the UCDP GED, and is hence not included in the analysis here.

The Kivu Conflict is coded as a civil conflict once the CNDP, a political armed militia group of the DRC, comprised in large part of ethnic Tutsi-Banyamulenge, led by Laurent Nkunda (formerly of the RCD), joined the fighting against both groups following the events around the 2006 general elections in the DRC.

Prior to the elections, as mentioned, J. Kabila had installed a transitional government during his attempts to negotiate peace talks after first assuming the presidency (following his father's assassination). Maintaining his own status as president, he appointed vice-presidents comprised of many of the former rebel groups that had

fought against the government (including the AFDL that had formerly supported his father; the RCD, which had since splintered into multiple factions; and the MLC). As a result, the Tutsi-Banyamulenge were represented in this government (by representatives of the AFDL and the RCD).

Figures 6.17, 6.18, and 6.19 show large numbers of aid projects going to the ethnic Tutsi-Banyamulenge settlement area in the east (outlined in green) in 2003, 2004, and 2005, respectively – the years during which J. Kabila's transitional government endured and the Tutsi-Banyamulenge enjoyed access to power. Ethnic civil conflict involving the Tutsi-Banyamulenge does not occur during 2003, 2004, and 2005.

Figure 6.20 displays all armed conflict events in the DRC in 2002. Three conflict events – totaling an estimated 50 fatalities – occur in the east. However, aid can be seen allocated to various parts of the country in 2003 (see Figure 6.17), suggesting that other mechanisms than prior conflict location drive aid allocation. No armed conflict events are coded for the years 2003 and 2004, suggesting that aid allocation in the years 2004 and 2005 is likely influenced by other mechanisms as well.

When looking at the eastern region over time, one can see the large number of aid projects going to where the Tutsi-Banyamulenge settlement area is located (outlined in green). This is evident in Figures 6.17, 6.18, and 6.19. Its effect on civil conflict – namely that ethnic civil conflict involving the Tutsi-Banyamulenge does not occur during this time period – is also apparent.

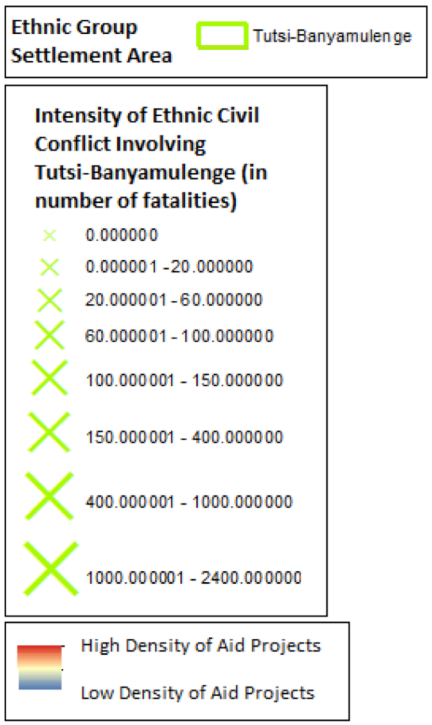


Figure 6.17. Aid Allocation in 2003; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 2004.

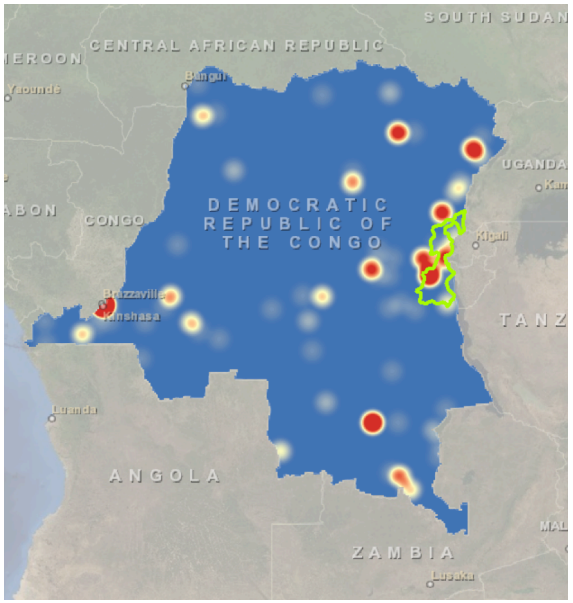


Figure 6.18. Aid Allocation in 2004; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 2005.

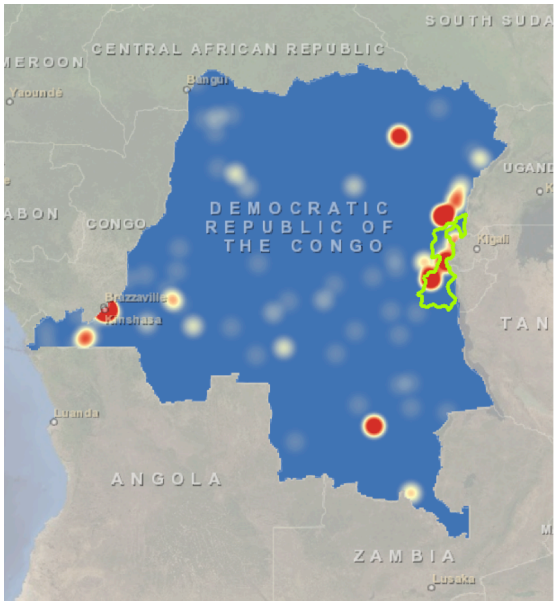


Figure 6.19. Aid Allocation in 2005; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 2006.

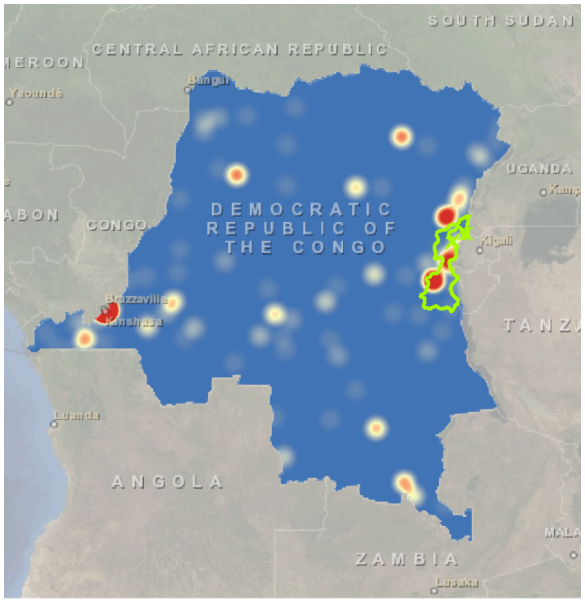
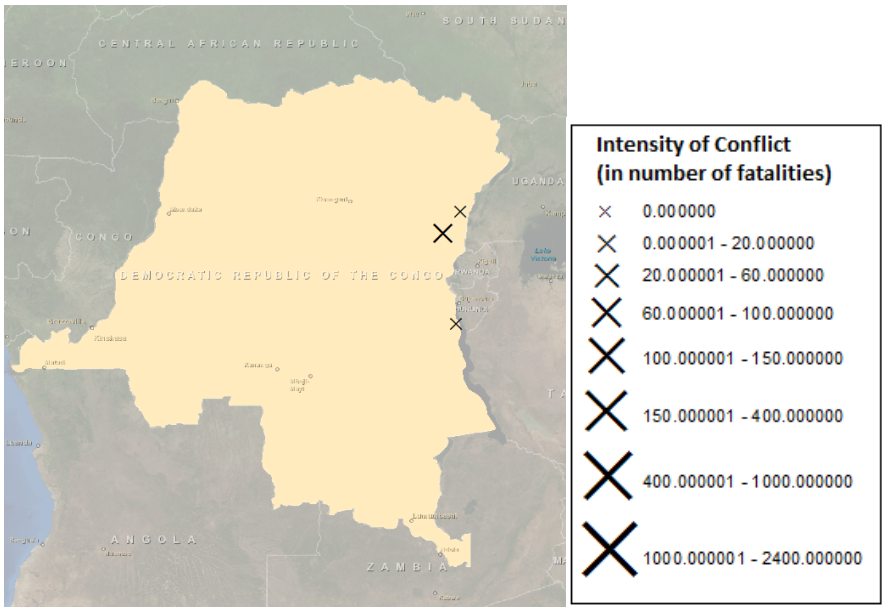


Figure 6.20. All Conflict Events in 2002.



"After the election, the small but powerful Tutsi community in Eastern [DRC] saw their representation in the national government disappear" as J. Kabila was able to consolidate his own power (Kavanagh, 2009). This restructuring was of benefit to the ethnic groups comprising J. Kabila's power base, namely the Luba Shaba, the Lunda-Yeke, and other Kivu groups. This advantage can be seen in the way patronage flows (as aid flows) begin to be directed to these areas to a higher degree (see Figures 6.21, 6.22, and 6.23), namely to the settlement areas of the Luba Shaba (outlined in dark grey) and the Lunda-Yeke (outlined in brown) in the southeast. Figure 6.21 shows aid project locations in 2005; here one can see the small number of aid projects this southeastern region receives, evidenced by approximately two small-sized aid 'hot spots.' Following the election, however, with the restructuring of the government, one can see the increase in the number of aid projects reaching the southeast region in 2006 and 2007, evidenced by a bright aid 'hot spot' in Figures 6.22 and 6.23. Also

apparent in these maps is the continued aid to the Kivu region for the benefit of other Kivu groups (outlined in pink) in the east.

The overlap in the settlement areas of the Tutsi-Banyamulenge (outlined in green) and other Kivu groups (outlined in pink) can play an important role in priming relative deprivation in this area. Not only have the Tutsi at this time lost the power they once held in government following the elections – and as a result are now being denied access to the power to which they before had access – but they are also now subjected to an even more tangible loss of access with other groups in the area enjoying access. Here I assume that individuals are aware of the extent of their access to resources, and are also aware of the relative level of access of geographically neighboring groups. "As a result, many [Tutsi] decided their future belonged not with the ballot box, but with a gun" (Kavanagh, 2009).

One can see civil conflict involving the Tutsi-Banyamulenge (conflict sites in green) beginning to be seen in 2006 (see Figure 6.19) in the east. This ethnic conflict increases even more so in 2007 and 2008 (see Figures 6.24 and 6.25), especially in the region in which the settlement areas of the included (other Kivu groups, outlined in pink) and excluded groups (Tutsi-Banyamulenge, outlined in green) overlap, which can in turn do much to make individuals (even more) cognizant of inequalities.

Figure 6.21. Aid Allocation in 2005.

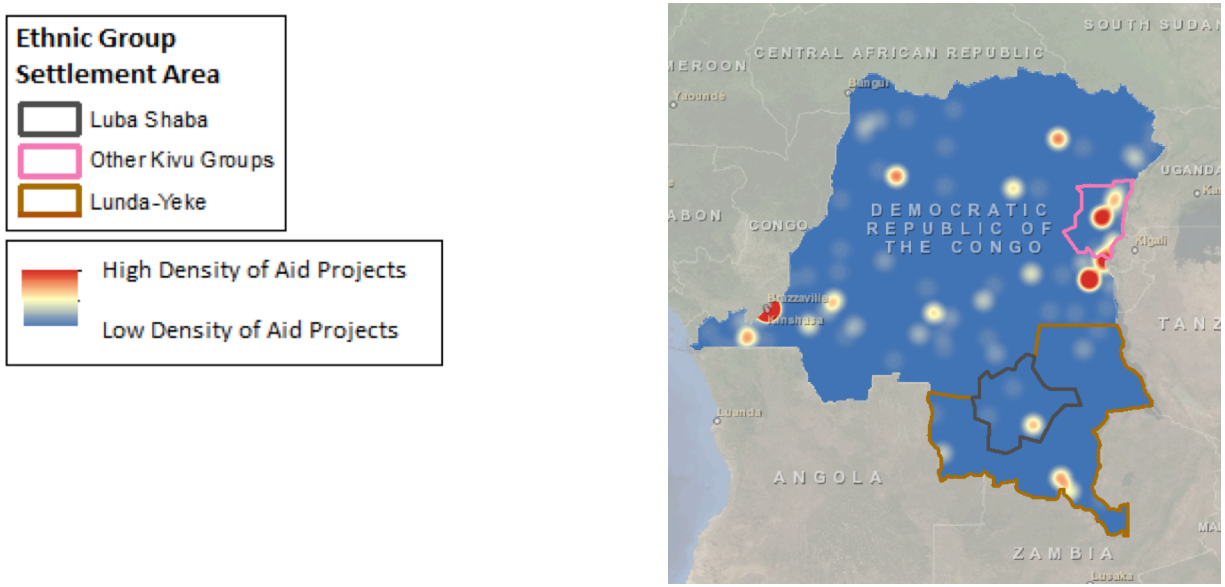


Figure 6.22. Aid Allocation in 2006.

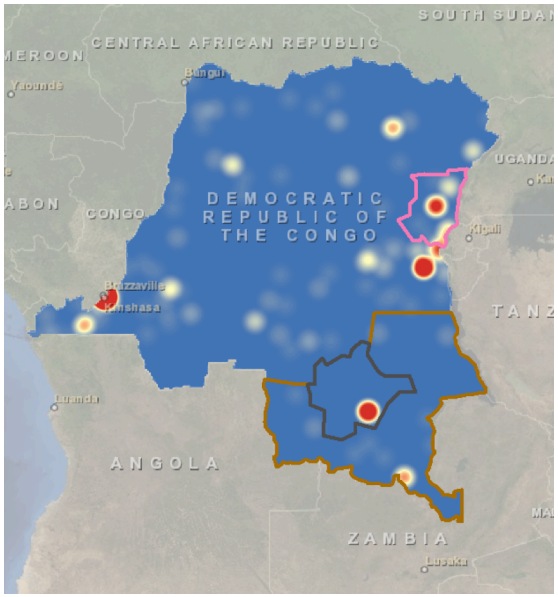
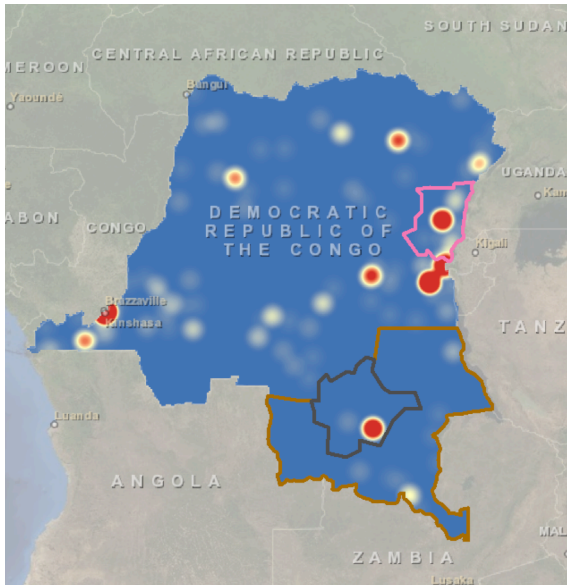


Figure 6.23. Aid Allocation in 2007.



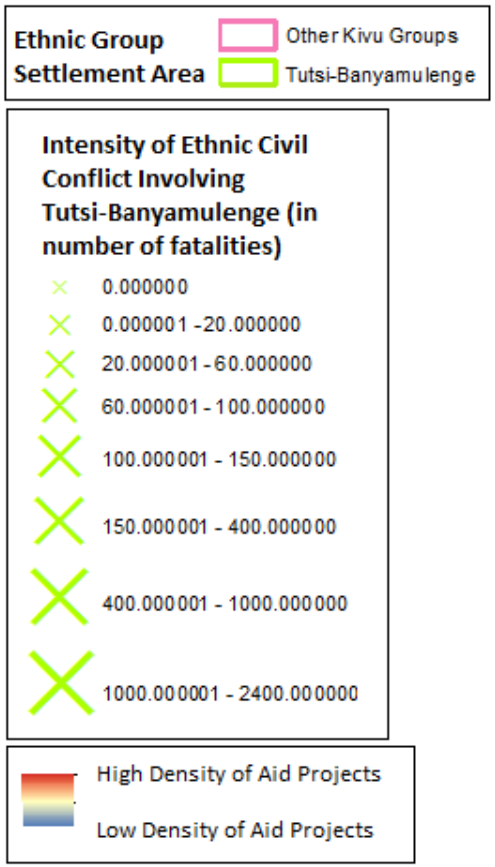


Figure 6.24. Aid Allocation in 2006; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 2007.

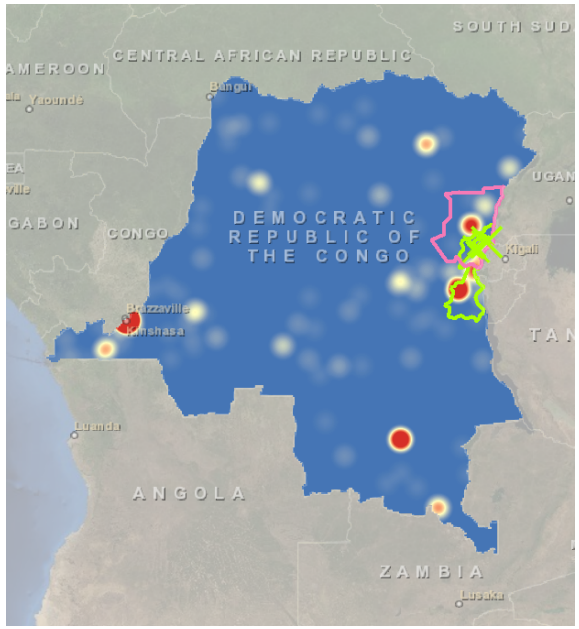
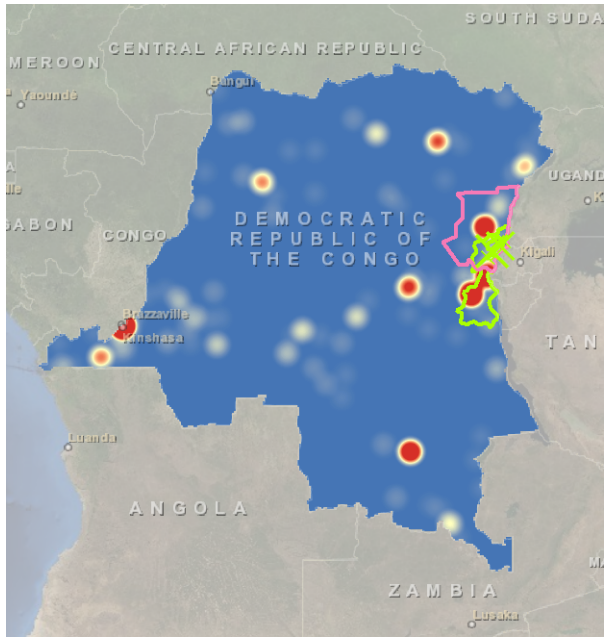
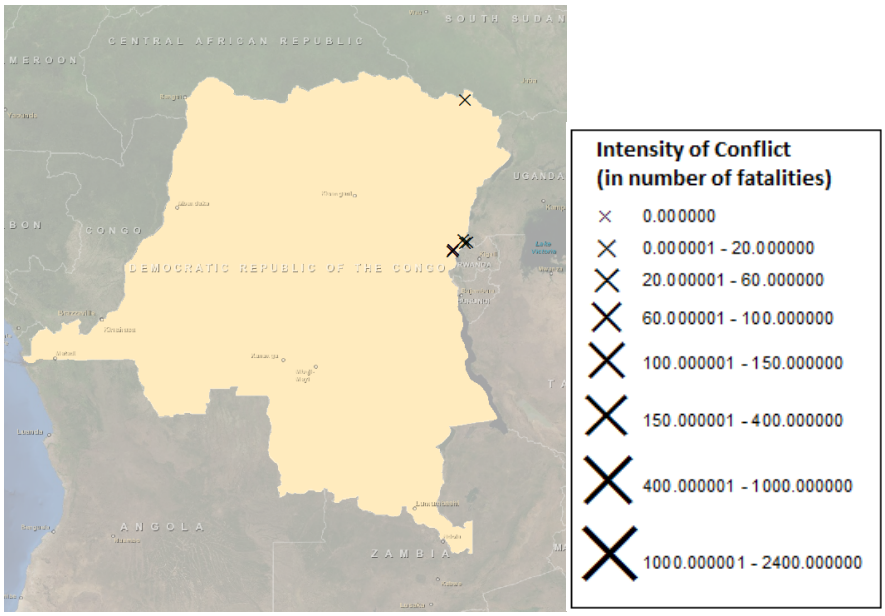


Figure 6.25. Aid Allocation in 2007; Ethnic Civil Conflict Involving the Tutsi-Banyamulenge in 2008.



No armed conflict events are coded for 2005, suggesting that aid allocation in 2006 is likely influenced by other mechanisms than simply prior conflict location. Figure 6.26 displays armed conflict events in 2006 – nine events, each with an estimated less than 20 fatalities, most with less than five. This too lends credence to the notion that prior conflict location is not the leading cause of where aid projects are located in subsequent years.

Figure 6.26. All Conflict Events in 2006.



6.6 Conclusions

The maps presented here help paint a picture of how the way in which aid is allocated subnationally within a state can contribute to civil conflict. It is not my contention here that aid flows in and of themselves alone fuel civil conflict. Rather, the way in which aid is allocated within a state – where it goes, whom it benefits, who receives help, who does not, etc. – can serve to exacerbate tensions that might already exist in

a state. Within a climate of ethnic tension and low overall development, a biased allocation of aid that can serve to dramatize inequalities that might already exist can serve as further fodder contributing to the start of a rebellion, or at worse can be the match that ignites rebellion. Especially dangerous is the fact that aid can provide outside revenue – so in addition to its role of fanning the flames of tension by dramatizing inequalities, it can also act as the fuel behind conflict through offering rebels access to the resources they might need to fight. So often securing access to resources is an integral goal of conflicts, especially in the DRC.

"The conflict in eastern [DRC] is so fully encompassing that everything seems to sustain it, whether it intends to or not" (Rosen, 2013). This is especially true of aid flows, which have before played a role in igniting and fueling conflict in the region – such as in intensifying inequalities between Hutus and Tutsis in Rwanda in the events leading up to the Rwandan genocide of 1994 (Uvin, 1998). Even after conflicts as grave as the genocide end, the tensions left behind are not always quelled. "The pernicious effect of political exclusion has a tendency to spill over state borders" (Cederman et al., 2013, p.141), as can arguably be said of tensions involving Tutsis especially across the border of Rwanda and the DRC. "Since marginalized communities have little to lose at home, they also are more willing to upset the status quo abroad in the name of ethnic solidarity and commonly felt grievances" (Cederman et al., 2013, p.141), a notion that makes ethnically excluded groups near state borders especially likely to rebel, particularly when enjoying the support of ethnic kin from across the border.

In light of these findings, as well as those discussed in the two prior quantitative chapters, in the following chapter I offer some conclusions that can be drawn from these results, and discuss the policy implications that they might have. Specifically I highlight the steps that can be taken by countries, and those aiding them, to make especially vulnerable states more resilient, both in becoming less susceptible to conflict, as well as being able to better and more quickly recover following conflict events.

7 Conclusions and Policy Implications

The findings in the prior three chapters – based on statistical results from disaggregated and aggregated quantitative analyses and spatial maps from the country-case study of the DRC – suggest that in environments where horizontal inequalities are high, if aid is allocated in a biased manner, it can fuel civil conflicts in a state. When these horizontal inequalities lie along ethnic cleavages – which include some ethnic groups, while excluding others – identification along ethnic lines can serve as an important mobilizing source in organizing collective political action, given both the group's common identity and common grievances.

If the harmful costs (for civilians, especially) associated with increased civil conflict in states are to be minimized, it is important that aid strategies and policies directed at these regions make some changes to their current models to account for these indirect consequences of the aid system. Bolstering the resilience of these regions is of utmost importance in order to aid these societies in becoming both less susceptible to conflict as well as better and more quickly able to recover from shocks such as conflict or the chronic stresses of violence and poverty. In this chapter I introduce strategies and policies that can be implemented in this regard, followed lastly by some suggestions for future research in this vein.

7.1 Resilience

Resilience "refers to the capacity of a system to continue to function given external shocks [or stresses]" or its ability to maintain core functions during periods of stress (Martin-Breen and Anderies, 2011, p.9). The term was originally used in reference to ecological systems by Holling in the 1970s to describe the adaptation of natural systems to changes to their ecosystem (Holling, 1973). As the concept is applicable to a variety of mechanisms in other domains, resilience has become an increasingly popular construct through which to examine the mechanisms and processes at play in other fields outside of ecology as well (e.g., business, economics, natural disaster management). Increasingly recently it has become popular as a framework within the international development field as well, especially as it relates to the resilience of communities, societies, or regions in recovering quickly from the negative impacts of shocks (e.g., violent conflict, the collapse of a commodity price) or to work towards overcoming systemic stresses (e.g., economic vulnerability, chronic poverty, violence at-large).

USAID (2012) defines resilience as "the ability of people, households, communities, countries, and systems to mitigate, adapt to and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth." Most important to note is USAID's emphasis on supporting a more generic, universal capability, which speaks to the need for the positive effects of resilience being broad-based as opposed to resilience being a more specific or narrow adaptation to a shock/stress. It places importance on inclusive growth as a foundation

for enhancing overall resilience in the future, which helps highlight the premise that inequality reduces resilience. This suggests that minimizing inequality within the population can be one way to help bolster resilience as this can help foster inclusive growth. Also noteworthy is the way in which USAID makes a distinction between multiple levels of analysis, enumerated individually yet important in tandem, wherein the roles and behaviors of people and households are crucial in and of themselves, yet also in what it means for the behavior of the community or country as a whole. Additionally, its emphasis on reducing chronic vulnerability is significant, which is more about evolution and progress, rather than merely avoiding harm and maintaining function (as seen in other fields' definitions). International aid agencies ultimately want to shift the focus from 'continuously putting out fires' (i.e., using aid towards helping communities overcome large-scale one-time shocks) to a more cooperative relationship in which chronic vulnerabilities are mitigated and the aid-recipient minimizes the chances of succumbing to the negative consequences of detrimental shocks in the future. The most effective response to the negative consequences of shocks and vulnerabilities is to prevent them from occurring in the first place.

7.2 Building Resilience: Inclusive Growth through Minimizing Inequality

Though it is important to guard against future shocks (e.g., civil conflict), it is also crucial to guard against stresses to a system, such as chronic horizontal inequalities that can create tension in a society, making reaching development goals (even more) difficult. As mentioned, one way to improve resilience within a vulnerable region is through minimizing inequality within the population, as this can help foster inclusive

growth, which can be crucial in bolstering the ability to mitigate, adapt to, and recover from shocks and stresses (USAID, 2012). Helping improve the "social and economic conditions of vulnerable populations" (USAID, 2013) within communities is a fundamental step in helping minimize the likelihood of future conflict, especially as doing so can help assuage (some of the) grievances that can fuel rebellion.

7.2.1 Development and Policy Strategies

Fostering a more inclusive government is an important step for 'high-risk' states to take in order to minimize their likelihood of experiencing conflict. States should ensure that democratic institutions "accommodate and co-opt the country's various ethnic and regional communities" (Nafziger, 2006, p.18) in order to ensure that aid and other resources are not benefitting a specific subset of the population only to the detriment of an excluded population.

Policies should be set up to correct for large inequalities in access to resources as a function of population size and/or ethnic discrimination and exclusion.

> In a politically inclusive democratic system, particular types of proportional representation are needed to ensure participation by all major groups in the elected bodies. For inclusive government, representation of all such groups is essential not only at the level of the cabinet but also other organs of government. For political inclusivity members of major groups also need to be included at all levels of the civil service, the army and the police. (Stewart, 1999, p.15)

The existence of horizontal inequalities within a state should not preclude a state from receiving assistance. If anything, the presence of these imbalances can often mean

that there exist segments of the population receiving minimal assistance and who have minimal access to resources.

In these types of situations, policy conditionalities should be placed on recipient governments. "Policies to prevent conflict need to be directed at reducing horizontal inequalities in conflict-prone countries in all dimensions – political, economic and social" (Stewart, 1999, p.1). An issue that can often arise, however, is that "domestic governments may not wish to pursue such policies, as they want to continue the dominance of their own group" (Stewart, 1999, p.1). In these types of situations,

> international donors can contribute through their own expenditures, and also through policy conditionality. In practice, current conditionalities do not contribute to a reduction in horizontal inequality except accidentally. Current political conditionality is concerned with establishing democracy, not inclusive government, while current economic and social conditionality is directed towards promoting growth and efficiency and poverty reduction but not reducing horizontal inequality. Yet, the current conditionalities will not succeed in realizing their objectives of economic growth and democracy if civil war occurs. Hence they need to be changed for conflict-prone countries to place the reduction of horizontal inequality as a central objective. (Stewart, 1999, p.1)

Stewart (1999) highlights some of the current policy conditionalities in place, namely those enforced by the IMF and World Bank. She stresses the fact that these organizations do not take into account the effects of their conditionalities on subnational inequalities, as well as their absence in accounting for "the possible undermining of the state resulting from cutbacks in government expenditure and powers following their recommendations" has the unfortunate effect of minimizing the effectiveness of their policies (Stewart, 1999, p.17).

Donors could play their part by having a better understanding of the inequalities and cleavages that may exist in recipient states. This knowledge should be used in their decisions regarding how to target projects. Aid programs should make an effort to "target weaker segments of the population" (Nafziger, 2006, p.18), especially through "increased international funding to reduce food crises, directly help the poor, ameliorate external shocks, and write down debt burdens" (Nafziger, 2006, p.18).

Even in instances that weaker segments of the population are not targeted specifically, ensuring more even and equal allocation of aid and other resources within a state is crucial. When income and/or access to resources increase in a state, "people may be expected to mind less about their relative position" (Stewart, 1999, p.6), assuming that the differences that already exist are not further exacerbated. Klugman (2000) cites the example of Kenya in the 1960s and 1970s, stating that the overall increase in income and resources in the country during that time period "has been argued to be one reason why despite persistent relative inequality among tribal groups large scale conflict did not result" (Stewart, 1999, p.6).

Aid proliferation can also lead to negative, indirect consequences for recipient states. Having to shoulder the burden of a string of administrative procedures associated with various aid projects can become quite cumbersome for recipient states (Riddell, 2007). Though the allocation of aid projects in a state – especially when it targets an ethnically included group to the detriment of excluded groups – is more a function of

patronage flows than administrative burdens, pushing for recipient states to alter their disbursement behavior will likely become an even more difficult feat if it comes not only with gross cultural and structural changes to policies, but also with burdensome administrative requirements. Thus, in general, a greater coherence of aid programs is important (Nafziger, 2006), especially since, as of now, so much "aid money tends to get stuck in red tape or get misappropriated" (Hyden, n.d., p.8).

Given the inherent issues that can arise with program-based models of aid – where aid sums are appropriated to state leaders to be allocated subnationally as needed – project-based models of aid might be a more effective alternative – where aid projects specifically are allocated to states, in which donors maintain more control of where projects are implemented. Especially in light of studies, such as this one, that suggest that large sums of aid in the hands of the central government can create opportunities in which aid is used as patronage – at worst, exacerbating tensions and fueling conflict – while not aiding in the meeting of development goals (i.e., arguably, for what it was intentioned), examining alternative models of aid distribution that might minimize the effect of negative uses of aid is a helpful exercise.[65]

Hyden argues that the current type of model:

[65] An important aspect of why large aid programs exist (and are prevalent) today is their strategic interest for donor countries. Through relationships fostered with recipient-country leaders, donor-country leaders are able to gain some tangible benefits from the system. Though, arguably, these benefits are lost in a project-based system, it should be noted that advantages would still exist for donor countries within this type of model – namely that increases in development gains abroad can have stabilizing effects for the international system, which can in turn do much to alleviate (some) security concerns that may exist for donor countries – in addition to the apparent normative gains associated with further human development globally as a whole.

> not only generates governance problems such as incidents of corruption[,] but also sustains [an approach] … that does little to reduce poverty and fails to satisfy current principles of how aid money should be utilized. Above all, it does nothing to reduce the influence of particularistic norms in resource allocations. (Hyden, n.d., p.8)

Outtara and Strobl, for example, "find evidence that project aid flows affect growth positively whilst the impact exerted by program aid is negative" (2004, p.1). "Most African governments have an 80/20 formula for sharing expenditures – four-fifths going to central government, one fifth to local governments" (Hyden, n.d., p.8); it is hence evident that the current model is ineffective in adequately reaching targeted populations.

In order to increase the access of vulnerable populations to aid projects, a number of steps could be taken. For example, the direct distribution of funds and resources to targeted populations could offer a way in which to minimize opportunities for capture, embezzlement, and unequal patronage. Given that "leaders who enjoy large resource rents often distribute them in ways that protect and augment their own positions of power" (Gillies, 2010, p.iv), diminishing their opportunities at utilizing these resources for less effective means can be beneficial in trying to meet development goals. Blattman, Fiala, and Martinez (forthcoming), for example, find that providing funding to poor and unemployed artisans ultimately led to many investing in skills training, tools, and materials, ultimately ending in practicing a skilled trade.

Furthermore, development agencies and NGOs should play a (larger) role in implementing aid projects on the ground in order to better ensure that projects are reaching their targeted recipients, though this should be done with caution. Ensuring that projects are demand-driven is crucial (Hyden, n.d.); this can be done through collaboration with locals and capitalizing on the use of indigenous talent to support projects on the ground, especially as valuable insight can be gained into what policies and development goals the population truly needs, as individuals at the local-level will likely have different insight regarding the needs of the population.

It is also important for initiatives to "cater for local institutions, governmental or non-governmental" (Hyden, n.d., p.8), especially as this can help maximize their potential for success. Additionally, those initiatives should "be independent of direct presidential or ministerial control," they also ought to be professionally managed in order to maximize efficacy (Hyden, n.d., p.8). "The benefit of this [type of] approach is that it provides incentives for local stakeholders to adopt universalistic principles for managing their affairs and [can help] reduce their adherence to particularistic norms, including reliance on political patrons" (Hyden, n.d., p.8). Furthermore, through ensuring that local entrepreneurs have a stake in the projects, the likelihood of success of the project, especially once the development agency or NGO withdraws, increases, bolstering the sustainability of the project in helping attain development goals. Another complementary strategy is providing intensive information about more macro-level aid campaigns to the population to help inform constituents about the goals of the projects. Guiteras (2014) finds that when the population better knows

the associated responsibilities of community leaders, it can help increase accountability.

In short, though "some of the economic and social recommendations [that are] appropriate are likely to differ among countries[, the recommendations that concern] government expenditure and jobs, however, are universal" (Stewart, 1999, p.15). It is important to ensure that groups benefit equally from government expenditure and aid (e.g., the distribution of investment, access to jobs, provision of health services, access to water and sanitation, etc.); most importantly, it is especially crucial to ensure equality when it comes to access to education as access to it can "[contribute] to equity in income earning potential, while its absence [can perpetuate] inequality in incomes" (Stewart, 1999, p.15-16).

There are a number of ways in which to support governments and societies to "consolidate peace, build resilience, and prevent violence" (Clark, 2013, p.5). The following are a number of initiatives that should be incorporated (to a larger extent) into development agendas.

Following instances of conflict, during recovery it is important to support "developing capacities for all groups to engage in conflict resolution and mediation", especially as it aids in building trust (Clark, 2013, p.5). It is crucial to "[rebuild] the trust between citizens and the state through support for better governance systems and inclusive, responsive, and accountable institutions" (Clark, 2013, p.5) in order to

ensure that citizens become stakeholders within the system. Improving the capacity and authority of the state is also helpful in this regard in that it can help legitimize the government (again) (Ngoy-Kangoy, 2008).

The United Nations Development Programme (UNDP), for example, has implemented these strategies in a number of their endeavors (Clark, 2013). For example, in Kyrgyzstan they have established and supported national and local peace councils (following the events in Osh in 2010), as they did in Kenya (prior to the 2010 elections). In Ghana, they have helped build and strengthen national and local peace infrastructure to ensure peace for elections and in their aftermath. All of these initiatives did much to help develop the capacity for individuals of all groups to become involved in conflict resolution and mediation strategies.

Overall, bolstering the adaptive capacity of societies through promoting well-functioning institutions and good governance is of utmost importance as it can help make 'bouncing back' in the face of conflict more feasible, especially since it implies that the state is able to adapt to new challenges. "Institutional and infrastructure development [can increase] the productivity of private investment and public spending and [can enhance] the effectiveness of governance" (Nafziger, 2006, p.18). Disarmament, demobilization, and reintegration (DDR) initiatives can be helpful tools in integrating former combatants into society in order to minimize the likelihood of their becoming once again involved in conflict and violence. Often former combatants might find it too difficult to adapt to society post-conflict, which might

lead to their participation in a cycle of violence. The UNDP has implemented DDR campaigns in both Nepal and Sudan with some success (Clark, 2013); through offering vocational training, business loans, and access to civic education, these individuals are more likely to be able to adapt to life post-conflict and become contributing, positive members in society.

"Conflict tradition is an indicator of the legitimacy of political violence" (Nafziger, 2006, p.17); as a result, in areas that have seen a high level of violence, it is important to "[help] communities to deal with the legacy of violence" and recover from its negative effects, especially through helping deliver justice (Clark, 2013, p.5), as this can be crucial to helping bolster the future adaptive capacity of these states.

A number of initiatives by the UNDP help emphasize the importance of these goals (Clark, 2013). The use of mobile courts in the DRC, for example, to prosecute sexual violence has been a step towards helping deliver justice to victims – an initiative that will hopefully continue, as the use of sexual violence is higher in the DRC than anywhere else in the world. The UNDP has also implemented the use of mobile courts in Somalia, in addition to providing police training, in order to aid in attaining justice on behalf of victims as well. Police training, as well as recruitment and payment, has also been implemented in Afghanistan, where it has helped play a role legitimizing some of the avenues in which to attain justice.

In line with this, it is important to "[work] to ensure that people feel secure enough to invest in their own futures" (Clark, 2013, p.5), especially in order to confirm that strategies are being absorbed at the local-level. It is crucial for "political stakeholders [to be] educated and sensitized on their role, rights and obligations according to the demands of democracy and good governance" (Ngoy-Kangoy, 2008, p.237), especially if they are to become leaders in their fields.

Helping to develop new/better legal systems can help in instilling trust between the population and these leaders (Nafziger, 2006), especially since people will feel more confident knowing that in the future, leaders and perpetrators will be held accountable for their deeds. Strengthening the rule of law is also important in this regard. The UNDP's role in the facilitation of public discussions regarding the drafting of a new constitution in Tunisia, for example, helped ensure that individuals might be stakeholders in the system. The same could be said of the UNDP's role in Timor-Leste, where they helped ensure that individuals could play a role in the development of the constitution. Bolstering the feeling of community security is also important in helping individuals feel secure enough in the present in order to be able to invest in the future. A number of initiatives by the UNDP have been positive steps in this regard. For example, through establishing new police stations in South Sudan and improving police response time in El Salvador, in addition to implementing 'gun-free zones,' individuals might feel more secure in their current situations.

A vital way in which to ensure that individuals will invest in their own futures is if they are able to provide for themselves and their own families as active members of the work force. Through steady jobs – and not having to depend on aid or outsiders – individuals can increase their personal feelings of security, as they are stakeholders in their own futures. Additionally, targeting initiatives to help create jobs for young adults can also be important as a lack of jobs for this sector of the population can often lead to a higher likelihood of conflict. Building enhanced financial institutions and promoting well-functioning resource and exchange markets can also be vital steps at the state-level in creating an environment in which a strong work force can thrive (Nafziger, 2006).

Increasing taxing capacity can be an important step in this direction. Fjelstad and Moore (2008) argue that a broad-based and transparent tax system can "encourage constructive engagement between governments and citizens," especially since taxpayers "take a greater interest in fiscal policy and hold higher standards for what benefits accrue from public expenditures" (Gillies, 2010, p.12). Bräutigam (2008) cites both research and history in suggesting that broad-based taxation advances state building through both strengthening the 'social contract' between state and society as well as through ensuring institution building, especially as "the government incurs a political cost when it collects taxes" (Gillies, 2010, p.12).

If governments have (large) alternate sources of financing (i.e., foreign aid), they might avoid broad-based taxation, especially as it poses a cost for the state (Gillies,

2010). It is thus important to ensure that aid-recipient countries continue to maintain taxation in order to minimize the likelihood of dependency while also ensuring that citizens remain stakeholders and can hold the state accountable. This will likely be more difficult – and hence, arguably, even more necessary – in states featuring high levels of corruption, patronage, and abuse of public office.

Lastly, the importance of investing in education cannot be understated. There should be "greater investment in basic education and other forms of social capital" (Nafziger, 2006, p.18), especially given the impacts it can ultimately have on income earning potential (Stewart, 1999). In addition to its effects on the job sector, education can also play a role in better governance – instilling the values of the notions of democracy and good governance in school at an early age can help individuals internalize these values (Ngoy-Kangoy, 2008).

These are but a few targeted goals and initiatives that aid and development agencies can and should incorporate into their agendas. Ideally, the findings discussed in this project – emphasizing the important effect that aid allocation processes within a state may have on civil conflict – will be adopted and incorporated into current aid strategies and development agendas as well. In addition to the role that aid levels might play in each state, how aid is disbursed – especially in horizontally unequal states – is of vital importance.

7.3 Future Research

This project is but a first look at the crucial role of aid allocation strategies and the important role of the subnational distribution of aid. By realizing the environments within which the likelihood of conflict onset or intensity might be higher, more care can be taken in trying to minimize the negative effects of war on civilian populations.

Future research should continue to focus on identifying conflict landscapes, risks, triggers, dynamics, and its prediction in an effort to better identify environments in which conflict might be more likely (GEOPV, 2014). It is important to specifically examine these relationships at the subnational level in order to better and more accurately measure these mechanisms.

Extending the relationships uncovered here to other global regions beyond Africa is also a crucial avenue for future research. Previous research has examined the effect of horizontal inequalities in Asia (Stewart, 2002; Murshed and Gates, 2005; Brown, 2008; Mancini, 2008), Latin America (Stewart, 2002; Caumartin, Molina, and Thorp, 2008), and the West (Stewart, 2002), and has found that though ethnicity may be the main group mobilizer in Africa, in other areas of the world, group mobilizers can include class lines, clans, religion, or regional location (which may or may not necessarily coincide with ethnic or language divisions) (Stewart, 1999). Exploring whether the allocation of aid coincides with these divisions – and whether its allocation can exacerbate inequalities that might lie along these differences – would be an interesting extension of this work.

Additionally, as mentioned previously, exploring the effect of varying types of aid on the exacerbation of horizontal inequalities and ultimately on civil conflict would also be an important extension of this research, once this data becomes geocoded and available. It is likely that different types of aid may have different effects as a result of varying levels of fungibility, especially as some types of aid (e.g., food aid) might be more at risk of capture than others (Nunn and Qian, 2012).

Lastly, another interesting avenue to explore while taking into account the role that relative deprivation might play in horizontally unequal states in influencing conflict is the increasingly important role of technology. With the rise of new tools, like the World Wide Web, especially with growing access in more remote places around the world (i.e., Africa), exploring whether geographic proximity continues to play as important of a role in helping illuminate discrepancies in access to resources would be interesting as the Internet can serve as a way for those not physically near one another to become conscious of inequalities that may be at play. Boas, Dunning, and Bussell contend that "the extent to which [new] technologies foster within-country linkages among different sectors and socioeconomic classes" can play an integral role in the future of development (2005, p.95).

With new developments in data collection – new aid projects and conflict sites being geocoded for analysis, scheduled new releases for the EPR family of datasets in 2014, etc. – I hope to extend this study over years for which I did not have data at the time

of this project. Additionally, I feel the addition of further country-case studies – again, as the data become available – would also be a complementary future addition to this project. Continuing to examine how something intended to help (like aid) can indirectly transform into something harmful if factors like disbursement are not taken into account is vital if we are to better understand how to make our finite resources reach their maximum potential and do the most good.

Appendices

Table A.1. List of Included Country Cases and Conflict Years for which Aid Data Are Coded.

Country	State-based conflict years	Additional Organized non-state conflict years	Post-conflict year	Comment
Angola	1989–1995, 1998–2002	..	1996, 2003	
Burundi	1991–92, 1994–2006, 2008	1991–92, 1994–2006, 2008	1993	
Central African Republic	2001–2002, 2006, (2009–2010)	..	2003, 2007	
Chad	1989–1994, 1997–2002, 2005–2010	..	1995, 2003	2008 also coded
Comoros Islands	1989, 1997	1998	1990	1999 has not been coded although it is a post-non-state year
Congo, Democratic Republic	1996–2001, 2006–2008	2002–2004	2005	Note that 2005 is post-non-state year
Congo, Republic of	1993–1994, 1997–1999, 2002	..	1995, 2000, 2003	
Djibouti	1991–1994, 1999	..	1995, 2000	Versus Eritrea 2008 not coded since it is an interstate conflict
Eritrea	1997, 1999, 2003	..	1998, 2000, 2004	Djibouti versus Eritrea 2008, and versus Ethiopia (1998– 2000) intermittent year 2001 not included since those are interstate conflict years
Ethiopia	1989–1996, 1998–2008	..	1997	
Guinea Bissau	1998–1999	..	2000	
Guinea (Conacry)	2000–2001	..	2002	

Ivory Coast	2002–2004	2005	..	2006 has not been coded since it is a post-conflict year of a non-state dyad that wasn't coded as such by the time we did our coding
Lesotho	1998	..	1999	
Liberia	1989–1990, 2000–2003	1991–1992, 1994–1996	1993, 1997, 2004	
Mozambique	1989–1992	..	1993	
Nigeria	2004 (2009)	2003–2004 (2008)	2005	Conflict year 1996 (Cameroon vs Nigeria) is not coded
Rwanda	1990–1994, 1997–2002, (2009–2010)	..	1995, 2003	Includes only two events from 1995
Sierra Leone	1991–2000	..	2001	
Somalia	1989–1996, 2001–2002, 2006–2010	1997–2000, 2003–2005	..	1998–2000 are missing since non-state prior to 2002 weren't available when we started coding
Sudan	All years	..	..	Note that South Sudan was considered a part of Sudan by the time the area was coded
Uganda	1989–1992, 1994–(2010)	1995–1997, 2003, 2004	1993	

Table from Strandow, Findley, Faber, Marchesoni, and Powell (2012, p.3-5).

Table A.2. Effects of Geographic Proximity to Aid and Ethnic Exclusion on the Intensity of Ethnic Civil Conflicts (all data, including less precise aid projects).

	Hypothesis 5A				Hypothesis 5B			
	(19)		(20)		(21)		(22)	
	Included	Excluded	Included	Excluded	Included	Excluded	Included	Excluded
Aid (logged)	0.00116	0.0470***	0.00275*	-0.000342	0.00121	0.0455***	0.00270*	-0.000297
	(0.00159)	(0.000561)	(0.00159)	(0.000526)	(0.00159)	(0.000560)	(0.00159)	(0.000526)
Distance (logged)	-0.123***	0.953***	-0.0647***	-0.0500***	-0.0821***	0.274***	-0.0922***	-0.169***
	(0.0120)	(0.00219)	(0.0124)	(0.00310)	(0.0257)	(0.00852)	(0.0260)	(0.00924)
Distance (logged) - quadratic					-0.0183*	0.254***	0.0123	0.0425***
					(0.0102)	(0.00307)	(0.0102)	(0.00311)
GDP per Capita (logged)	-0.0367	-0.505***	1.909***	-1.518***	-0.0441	-0.461***	1.921***	-1.529***
	(0.0304)	(0.00284)	(0.0642)	(0.0163)	(0.0307)	(0.00292)	(0.0650)	(0.0163)
Population (logged)	0.327***	-0.198***	-2.640***	-2.510***	0.322***	-0.193***	-2.647***	-2.503***
	(0.0190)	(0.00303)	(0.108)	(0.0205)	(0.0192)	(0.00305)	(0.108)	(0.0206)
Group Size	-1.059***	0.919***	-4.889***	3.707***	-1.073***	0.867***	-4.884***	3.727***
	(0.0513)	(0.00915)	(0.230)	(0.0207)	(0.0518)	(0.00923)	(0.230)	(0.0208)
Polity Score	-0.181***	-0.0777***	-0.0761***	-0.0269***	-0.181***	-0.0697***	-0.0759***	-0.0262***
	(0.00227)	(0.000509)	(0.00451)	(0.000983)	(0.00228)	(0.000522)	(0.00451)	(0.000984)
Constant	-1.219***	6.812***	36.59***	48.72***	-1.106**	6.861***	36.65***	48.73***
	(0.467)	(0.0582)	(1.603)	(0.261)	(0.470)	(0.0585)	(1.603)	(0.261)
Fixed Effects	no	no	yes	yes	no	no	yes	yes
Number of Observations	148,303	1,390,282	148,303	1,390,282	148,303	1,390,282	148,303	1,390,282

Standard errors in parentheses; ***p<0.01, **p<0.05, *p<0.1

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